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Programs for academically talented children should be built on a sound program for all children. Characteristics of a good program are stated specifically in line with the overall goal. Programs now in operation are mentioned.

Some areas of particular value to the academically talented are: problem solving, critical thinking, basic skills, creativity, value system development and independent work. Depth of learning, motivation, and development of talents are also discussed.

It is an administrative task to make the idea of a program workable. Financing is of no great concern. Organization and grouping are considered within the limitations of the local system. Guidelines are given to aid in this. Most teachers for academically talented children are chosen from the staff. Good instructional programs are founded upon public understanding and support. Evaluation of the program is essential and suggested criteria for evaluation are included in the text.

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ELEMENTARY EDUCATION

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ELEMENTARY EDUCATION

and the Academically Talented Pupil

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FOREWORD

A good school program for *all* children is a vital concern of elementary-school educators. All children—rapid learners, slow learners, those who fall somewhere in between—need, and are entitled to have, a learning program that helps them discover, develop, and enjoy their own unique potentialities. But in classrooms that are overcrowded, too often lacking the needed variety of resources, and sometimes staffed by teachers who are inadequately prepared, we are not consistently meeting the needs of all children.

This publication takes a look at the problem of meeting the needs of that portion of our elementary-school population which may be identified as academically talented. The importance of meeting the needs of these children is not a matter of controversy. But there is controversy over the ways in which these needs should be met within the elementary-school program. Some points of view are based on research, some on experience—and some of them stem from the pressures and anxieties of our times.

We need to take a close look at the matter of providing adequately for academically talented children, viewing it as an integral part of providing adequately for all children. We hope that this publication will (a) stimulate schools at the local level to reappraise their programs to determine whether the needs of all children are being well met; and (b) provide some guidelines for sound appraisal and action.

We hope, too, that this joint publication of the Department of Elementary School Principals, and the NEA Project on the Academically Talented Student will have real value for elementary-school educators.

ROBERT W. EAVES, *Executive Secretary*
Department of Elementary School
Principals, NEA

A Frame of Reference

Promotion of the general welfare is a central concern of a democratic society. The maximum welfare for a group is achieved when each member of the group contributes as much as he is able. Although every individual has an obligation to contribute, those who have a large capacity to contribute carry a larger obligation than those whose capacities are small.

This soundly democratic concept underlies the special claims that all Americans should rightly make upon their most able fellow citizens. That these claims may be fulfilled, our society must see to it that individuals who possess the highest talents are given the fullest opportunities to make those talents productive. The paramount consideration is the welfare of the community at large and of all the members of that community; it is not to serve the special advantage of the few who are gifted. A parallel consideration is that every individual, whatever his gifts, deserves the fullest opportunities for self-realization.¹

SOCIETY'S NEEDS

Events of the past decade have brought more sharply into focus the need for persons of high intellectual and creative abilities. The race for survival has heightened our anxieties. For the first time in our peacetime history, national defense has become an objective of education.

Many of the current pressures upon schools to create programs for academically talented children are couched in a milieu of demands for highly efficient and expertly trained personnel for technical productivity.

¹ National Education Association and American Association of School Administrators, Educational Policies Commission. *Education of the Gifted*. Washington, D.C.: the Commission, 1950. p. 2-3.

The academically talented child is viewed as high potential for our scientific economy.

Aside from the immediate concern for national welfare, a broader perspective of human history points to the fact that all cultures are greatly dependent upon people of intellectual competence. The significant breakthroughs in most areas of human endeavor have been made by persons of unusual ability.

As a society increases in complexity, persons with high potential have relatively less chance of making significant contributions to the progress of the society unless their high potentials are nurtured and developed. This places greater demands on the schools to identify and develop to the fullest pupils with high intellectual potential.

INDIVIDUAL RIGHTS

However, concern for the education of the academically talented that is predicated solely upon the contributions that these individuals may make to society is certainly open to criticism. There is another very real and important reason for our concern. Academically talented pupils are, first and foremost, children. They are unique as individuals, and each has an inherent right to opportunities for self-realization. When we speak of the community's obligation to provide equal educational opportunities for *all* children, when we speak of the development of *all* children to their maximum potential, we include the academically talented. The able child—as well as the handicapped child—has a right to expect from his society opportunities for self-actualization. The instructional leader who fails to identify and make adequate provision for the able child has, in fact, deprived that child of his inherent rights.

EQUAL OPPORTUNITY AND INDIVIDUAL DIFFERENCES

Equal educational opportunity is not synonymous with identical experience. In our efforts to be democratic we sometimes fail to make this distinction. Current critics of efforts to provide for the academically talented often assert that to single out these children for special attention is to be undemocratic. Yet life experience supports the conclusion that identical experience for all is not only unwise—it is impossible.

The physician gives the benefit of his competence to all his patients equally, yet he does not prescribe identical medication for them all. In school programs, those with special interests in creative writing or music do not have identical experiences. The physically handicapped, the mentally retarded, the visually handicapped, those who have hearing disabilities—these children are given the benefit of special attention and special programs geared to their needs. These programs are, for them, equal opportunity.

Then, too, providing for individual differences among children has been a primary concern of educators for many years. The testing movement gave scientific support to the idea more than 40 years ago.

The fact that children are different has become an axiom in educational theory. While application of this axiom has presented problems, efforts to solve them have been continuous. The good instructional program will provide for differences among children in any classroom, yet in some instances the talented are neglected because they seem able to get along on their own. To be consistent with the democratic ideal of providing equal educational opportunity, we must make sure that academically talented children are provided with effectively challenging experiences.

However, provision for the academically talented should never be viewed as a crash program, narrow in scope and purpose. It is one aspect of the goal of

structuring the learning environment so that each student, in keeping with his interests and abilities, can develop maximally in directions that are mutually beneficial to himself and to society. Provisions for able children should never become a substitute for quality education for all or a device for rescuing those with special talents from a program which is not good for anyone. Provision for the academically talented must grow out of a good program for all children. It is a never-ending process of improved teaching and learning.

Planning a Good School Program

A healthy concern for the welfare of academically talented children is essential for a sound appraisal of the school's total instructional program.

Since it is our premise that programs for academically talented children should be built on a sound program for all children, the following discussion is centered around several facets of a good over-all elementary-school program. The description affords a partial framework in which the school staff can examine its own program.

CHARACTERISTICS OF A GOOD SCHOOL PROGRAM

Serving All Children

The good elementary school serves all children of school age in the community. Schooling, beginning at an age when children are ready for kindergarten experience, should continue, uninterrupted, as the child moves through elementary school. With the exception of those of kindergarten age, most elementary schools reach nearly all the children in the community. Some regions do not as yet provide public-school kindergartens. Nevertheless, schools for the five-year-olds have long been recognized as being both feasible and educationally worthwhile when operated as an integral part of the elementary school.

Although nearly all states have compulsory attendance laws, these are sometimes not enforced, and seldom does the compulsory age coincide with the age for ele-

mentary-school attendance. About half of the states have compulsory attendance beginning at age seven or later. School officials should make sure that all qualified children are enrolled. Enrollment can be periodically checked against an accurate, up-to-date census of school-age children. This is sound practice in any community. Obviously, the discrepancy between enrollment and census enumeration will vary from community to community. In some communities many children will be enrolled in private schools. In others, a substantial number of children will not be enrolled in any school. Unless the school has a continuing census, migrant pupils may not be located.

A Comprehensive Program

A good elementary-school program is comprehensive. Its purpose is to help achieve the objectives of the school, and because educational objectives are, in general, periodically reviewed, the school program tends to undergo modification and change in line with this evaluation.

The program is well balanced and provides opportunities for systematic study in both broad and specific areas.

Although the development of specific skills is an essential part of a good elementary-school program, emphasis is also given to conceptual learning—learning that comes through experience, as well as learning through problem solving. A balanced program provides for the development of many kinds of skills, including those related to such areas as language arts, arithmetic, science, social studies, and creative and recreative arts.

The comprehensive school program deliberately strives to develop in each child those attitudes and values that are essential for effective citizenship in our

society. Although some of this may be accomplished through direct instruction, a significant contribution can be made through an effective psychological climate in the classroom and through the environment of the entire school.

Provision for Pupil Differences

The good elementary school recognizes that children differ in their development in a multitude of ways—in rate of growth, in development, in abilities, in interests, and in experiential background. Principals and teachers in these schools also recognize that good instruction tends to increase these differences rather than to diminish them. Indeed, regardless of the quality of instruction, children grow more unlike each other as they progress through our schools.

Many schemes are being used to assist teachers in providing varied educational activities for children. Educational literature is replete with suggestions, though the research is by no means clear-cut on most plans. However, two rather important generalizations seem apparent from the research, and while these offer no solution to the complex problem, they may give the principal and his teachers a sense of direction.

The first generalization is that there is no panacea for this problem. No administrative scheme or group of schemes can substitute for sensitivity and skill on the part of the teacher. To be sure, the teacher can be assisted or deterred in many ways by organizational plans, but these plans only remove hazards and permit, rather than insure, an instructional program that provides for differences in children. Second, the essential characteristic of most successful plans is flexibility. With these two ideas in mind, brief attention can be given to avenues through which one can view aspects of organization and instructional programs that relate to providing for differences.

Pupil-teacher ratio. Before a teacher can hope to cope with the task of providing adequately for all the children in his class, there must be a favorable pupil-teacher ratio. A ratio of one pupil per teacher is, of course, economically unfeasible and, in most areas of learning, educationally inadvisable. Forty or fifty pupils per teacher is certainly inappropriate. The research is inconclusive on just what the ideal ratio should be.

Some interesting experimentation with grouping and related team teaching arrangements is now in progress. In several experimental schools, class size is being dictated by the varying needs of the learner. These schools are attempting to determine under what circumstances large groups may be effective for meeting pupil needs, and under what circumstances small groups are most desirable.

Some research has indicated that instructional procedures in small classes are often not very different from those in large classes. However, research has shown that teachers of small classes have more information about their pupils than do teachers of large classes and are able to make use of this information. It seems logical to conclude that a favorable pupil-teacher ratio permits more adequate provisions for individual differences. Professional judgment has generally dictated classes of no more than 30 pupils, preferably fewer with younger children.

Pupil placement. Viewed in its broadest sense, grouping is inevitable in any elementary school that has two or more teachers. What criteria shall be used? Chronological age? Ability? Interest? Social development? General achievement? The problem becomes more complex because schools tend to have multiple objectives and because for each learning episode there may be many concomitant learnings. For this reason, many schools use pupil placement criteria which include such variables as grade, intellectual development, achievement, and social and emotional development. Un-

doubtedly, the objectives deemed most important by a school staff should have a direct influence on the criteria used for grouping. The issue demands that each school staff examine its objectives and develop a well-conceived plan for placing each pupil in a group so that the learning environment is most advantageous for his development toward desired goals. Because children differ, any scheme for grouping or pupil placement, whether between grades or within grades, must be kept flexible.

Regardless of the plan used for grouping children, 30 pupils within a class vary in a multitude of ways. *No plan can make them alike on a single variable, much less a variety of variables.* For this reason teachers provide for flexible grouping *within* the class. This is a technique that offers many opportunities for adapting instruction to pupils with differing abilities and needs. Intraclass grouping takes many forms and has many bases, depending on the specific objectives sought. In some cases grouping is based on a very specific skill or need, such as the need to develop proficiency in computing with two-digit divisors in arithmetic; in many instances instruction is on an individual basis. In every case intraclass grouping is temporary, flexible, and arranged for specific purposes. Used indiscriminately and without purpose, it becomes mechanical, deadening, and ineffective.

Instructional materials. Providing adequately for children with a variety of needs and abilities is difficult even under the best conditions. The task becomes all but impossible, even for the best teacher, unless a wide range and variety of appropriate instructional materials are readily accessible. Restricting instruction to a single source of information, such as a single text, is inadequate for any child; for the bright child, the practice is stultifying. Good instructional programs must be supported by texts at varying levels of difficulty; a rich source of reference materials such as encyclopedias,

atlases, dictionaries; and materials on specific subjects or topics. Materials written for various reading levels must be available. Although it is difficult to overemphasize the importance of an abundance and variety of reading material, many other kinds of materials and equipment are necessary. Projection equipment, tape recorders, record players, art prints, maps, globes, manipulative aids for arithmetic, science equipment and materials—all are important.

A library is another essential for high-quality instruction. When properly planned and operated, the library becomes not only a storehouse for materials but a center of great significance in the teaching program.

Adequate facilities. A building does not make a school, but adequate facilities can certainly enhance instruction. A rich, varied program is more apt to occur where special and adequate facilities are available. Large, attractive classrooms are needed, to be sure, but so are many other facilities: auditorium, gymnasium, library, offices, and conference rooms. Equipment and furniture should be safe and functional. A school with dilapidated facilities can no more be expected to render maximum service than can a hospital or any other service agency in similar circumstances.

A flexible schedule. A flexible schedule for classes and activities facilitates instruction. A workday that is chopped into bits of time discourages pupil planning and evaluation, wide utilization of materials, and varied activities. It tends to discourage activities involving critical thinking, individual study, and differentiated activities, and to encourage whole group activities, the use of limited materials, and complete teacher direction. For these reasons longer blocks of time within the daily schedule are desirable. The pupil who continues to be interrupted for a new assignment or a special class or to listen to an announcement just as his interests are carrying him beyond the realm of superficial knowledge soon learns to play the "game" of school.

He also learns not to become too enthusiastic and too involved.

A Qualified Staff

As elementary education moves ahead, one of its most important responsibilities will be recruiting persons for teaching whose insights and social perspective are sufficiently penetrating and broad to encompass the future needs of children in our society. The qualified teacher is a socially mature and emotionally stable person skilled in human relations, in group processes, in individualizing instruction, and in evaluating children's growth. Implementation of these skills requires persons of exceptional qualifications and thorough academic and professional preparation. They must be broadly educated and especially knowledgeable in child development, in principles of learning, and materials of instruction. Current trends indicate that the elementary-school teacher of the next decade or so will have at least five years of college preparation.

In addition to having a qualified staff, it is important that teaching talent in a school be used as efficiently as possible. Ways must be found to relieve teachers of time-consuming, nonteaching chores, to provide effective supervision, and to assist teachers to grow professionally through well-planned and effective inservice activities. It is important, too, that specialized school personnel be provided to assist teachers in identifying and providing for children with special problems. Additional personnel, such as school physicians, nurses, psychologists, and guidance workers, can assist in releasing the time of the teacher for instruction of pupils.

Continuous Evaluation

A good school results from continuous planning and evaluation. Evaluation is more than a casual look at

a program and more than a testing program, though a testing program is part of the evaluative process. Through evaluation, progress of individuals and of groups is assessed in terms of goals and expected accomplishments.

Evaluation is a broad, comprehensive, and ongoing process. A look at three related ways of applying the process may clarify the means by which it is accomplished. First, there is evaluation of pupil and small-group progress carried on continuously by the teacher, the principal, and pupils. Second, the staff periodically may take an intensive look at a specific aspect of the instructional program, such as the reading program. The spotlight is focused on goals, processes, and accomplishments in this area. Third, many schools find it worthwhile to take a broad look at the entire school and its program every few years. Some type of evaluative criteria is employed in this kind of survey.

In all of these ways of using evaluation, two common factors are apparent—the school must have identified goals and objectives (evaluation must be in terms of these goals); and, data are necessary. The school must gather, record, and use information that will shed light on the extent to which goals and objectives are being achieved.

Effective School-Community Relationships

The good elementary school has become an integral part of its school community. It has built this relationship because the staff recognizes that parents have a right to know what the school does with their children and that learning is enhanced when parents and teachers build a common bond of understanding.

In an organized way, the school builds this understanding through techniques such as the following: reporting pupil progress to parents; bulletins; and PTA

meetings. These methods have proved effective, but, of equal importance, are the less organized, more subtle aspects of sound human relations—common goals and aspirations, mutual trust, and respect. Schools which would truly move forward toward better programs must have the support of the community.

WHEN TO BEGIN

No conscientious school staff is ever completely satisfied with its instructional program. Should the principal and his staff refrain from developing special ways of helping the academically talented children until everything else is to their liking? If the decision is to wait until everything is "just right," they may never get around to the talented. A more tenable program of action would seem to dictate not an "either-or," but a "both" approach—an effort at continuous over-all upgrading paralleled by a special effort to make the program significantly worthwhile for the talented.

CHAPTER III

A Look at the Academically Talented

A review of the literature describing the rapid learner, however designated, is apt to prove confusing, for the definitions are many and varied. Abraham tells the story of the graduate student who reviewed the literature for a list of definitions. After three weeks of laborious work the student had accumulated 113 definitions, and his survey was still incomplete.¹

DEFINITIONS

Generally, those who have conducted research surveys in the area of the education of the gifted have seen fit to use rather narrow, specific definitions. Some use a minimum IQ as measured by a particular test. The lower limit has varied from an IQ of 110 upward. Others have described the gifted as those who fall in the top proportion of intellectual ability. Some choose the top 10 percent. Hollingsworth has defined them as the top one percent of the juvenile population in general intelligence. In California, a review of special programs for gifted children revealed that the IQ range of participating children varied from 110 to 160 and above. Some schools used a cut-off point as high as 148 IQ in special programs.²

¹ Abraham, Willard. *Common Sense About Gifted Children*. New York: Harper & Brothers, 1958. p. 20.

² California Elementary School Administrators' Association. *The Gifted Child: Another Look*. Monograph No. 10. Palo Alto, Calif.: National Press, 1958. p. 8.

DeHaan and Havighurst have made a distinction between the "extremely gifted child and the solid, superior child." Children in the upper one-tenth of 1 percent are described as extremely gifted. The remaining children in the upper 10 percent in a given ability are called "second-order" gifted children. DeHaan and Havighurst tend to give breadth to their definition by considering any child gifted "who is superior in some ability that can make him an outstanding contributor to the welfare of, and quality of living in, society."³

Similarly, other researchers and groups have also chosen to use broad, comprehensive definitions. The American Association for Gifted Children has defined the gifted child as one "whose performance in a potentially valuable line of human endeavor is consistently superior." Others describe the gifted child as one who has exceptional ability in handling abstract ideas, in producing creatively, and in demonstrating social leadership.

Need for Broad Definitions

More recent efforts at establishing programs for academically talented children have usually been based on a broadly conceived definition. There are several reasons for this. First, as more evidence has been gathered, there has been recognition of the fact that academic talent is not solely synonymous with measured intelligence, but includes many additional factors—creativity, achievement, motivation, and a variety of special abilities. Second, instruments which are now available for measuring "thinking abilities" are limited both in scope and freedom from cultural influence. Third, a broader definition serves as the basis for a program which, for many schools, is more realistic. Finally,

³ DeHaan, Robert F., and Havighurst, Robert J. *Educating Gifted Children*. Chicago: University of Chicago Press, 1957. p. 1.

regardless of how bright a child may be, his physical health, emotional stability, and social development are essential considerations in planning his educational activities. A broad frame of reference allows one to take all of these factors into consideration when selecting children for special programs.

For many reasons, including those enumerated, a broad flexible concept of the "academically talented" seems advisable. Without desiring to add to the multitude of definitions, this publication is based upon the following point of view: *the academically talented child has consistent and superior ability in realms of academic pursuit, in obtaining and using ideas constructively and creatively, and in dealing with abstract concepts, symbols, and ideas.*

Local Decisions

Definition is a local decision. The concept "academically talented" is not a rigid one. Interpretations vary from school to school, from administrator to administrator, and from teacher to teacher. Within limits, this is inevitable and desirable. However, if a school system, or a particular school within a system, is giving special attention to its academically talented children, a common frame of reference within the system or school is necessary. Communication is dependent upon it; identifying and planning are inconceivable without it. Such common understanding is achieved through cooperative faculty effort under the leadership of the principal. Arriving at this common framework is a local concern; definition or description will vary from community to community.

The answers to two rather practical questions will affect the school's decisions both in selecting pupils and in program planning: How much attention does and can the school, under its present program, give to academically talented children? How much effort does the

school reasonably expect to make in educating the academically talented? Obviously the answers to these questions are related to the problem of the number of children selected as academically talented. This is largely dependent upon two factors: the definition of the academically talented child and the values which prevail in the community from which the children come.

Perhaps this can be more dramatically portrayed by considering only IQ measures as a criterion (admittedly, an oversimplification of the problem). If an IQ of 126 were considered the dividing point, one could expect approximately 6 percent of the population from an average community to be categorized as academically talented. Very good, we might think, but remember this is the application of the criterion across the board. What happens when the criterion is applied to individual schools? In many schools located in communities that are socially and economically favored, the use of this criterion would result in 40 percent or more of the pupil population being classed as academically talented. In many socially and economically impoverished communities, few, if any, academically talented pupils would be identified. Admittedly, this is viewing academic talent as a relative characteristic, but the *number of students* for which a program is to be planned is of considerable importance.

Of course, the selection of the 126 IQ was an arbitrary one, but the principle remains regardless of the point of selection. The table on the next page gives approximate percent of the school population scoring above selected IQ levels⁴ in two communities. (IQ here is based on the *Stanford-Binet* test of intelligence.)

⁴ Gallagher, James J. *The Gifted Child in the Elementary School. What Research Says to the Teacher*, No. 17. Prepared by the American Educational Research Association in cooperation with the Department of Classroom Teachers. Washington, D.C.: National Education Association, February 1959. 32 p.

<i>Stanford-Binet Intellectual Levels</i>	<i>Percent of School Community</i>		<i>Educational Expectations</i>
	<i>Average Community</i>	<i>Superior Community</i>	
IQ above 140	0.5-1%	2-3%	Graduate college (Medicine, Law, Ph.D. programs in physical and social sciences)
IQ above 130	2-4	6-12	
IQ above 125	5-7	15-20	
IQ above 120	10-12	30-40	Undergraduate college
IQ above 115	16-20	45-60	

If the teacher is to individualize instruction, a knowledge of the abilities and potentialities of each pupil is essential. However, teachers generally seem to agree that as the range of ability within a group increases, individualizing instruction becomes more difficult. This is true regardless of the mean of the group. If, as proposed earlier, programs for the academically talented are viewed as a facet of the larger problem of providing instruction that is suitable to the interests and abilities of each pupil, then the range or variation of ability within the class group—the degree to which a pupil is above the mean of the group in ability—becomes as important as the actual level of ability in establishing a criteria for selecting academically talented children. This has led Dunlap to propose that “a differential of 25 to 35 IQ points above the average intelligence of the group marks the lower limit of ability above which a bright child requires more than the classroom usually is able to offer.”⁵

In the final analysis, the definition of the term academically talented, accepted by an individual school, will need to be appropriate to the uniqueness of the school community and of the experiences of the staff.

⁵ Dunlap, James M. “The Education of Children with High Mental Ability.” *Education of Exceptional Children and Youth*. (Edited by William M. Cruickshank and G. Orville Johnson.) Englewood Cliffs, N.J.: Prentice-Hall, 1958. Chapter 4, p. 161.

CHARACTERISTICS OF ACADEMICALLY TALENTED CHILDREN

Any description of the gifted child should be prefaced with the statement that no concise composite picture will describe all gifted children. They vary in a multitude of ways. The same general principles of human development that apply to all children also apply to gifted children. However, forewarned of the hazards involved, generalizations from research can give us a group comparison of gifted children and their less gifted classmates.

When compared with other groups of children, gifted children tend to be stronger and also healthier. Their muscular coordination is better, and they are, generally, fine physical specimens.

In schoolwork these children almost always excel. They are superior in practically all subject areas, not just in a single endeavor. Their greatest superiority is in reading, arithmetic, language, science, and the arts. On the whole, they tend to be less interested and less proficient in civics and spelling than in other areas. Good penmanship is not one of their distinguishing abilities. They have more hobbies and pursue them more avidly than their less gifted classmates.

In personal-social development the gifted are less distinguished than in intellectual pursuits, though they more than hold their own. They are emotionally healthy. They are generally socially accepted by their peers. (Gifted children are usually well adjusted, though there is some evidence that the highly gifted may have more difficulty in adjusting to their world than do the less gifted children.)

Terman's studies have shown that not only do gifted children distinguish themselves in the ways described above, but that the superiority carries through into adult life. They are more apt to live highly creative, productive lives. They make more than their share of contributions to the betterment of mankind. They are sound

citizens, less inclined to get into trouble with the law and less inclined to suicide, alcoholism, and narcotic addiction. They are more inclined to marry than their less talented friends and less likely to have broken homes. Studies have shown that these gifted people also live longer.

Although emphasis has been placed on differences between groups of gifted children and more average children, one should be aware that these differences are a matter of *degree*, not *kind*, and that *great variability exists within each child*. It is also true that although gifted children tend to be superior in many traits, their greatest degree of superiority lies in those aspects of behavior which are closely related to the kind of intelligence that is reflected in handling abstract ideas and in thinking creatively. In this realm, gifted children tend to possess characteristics such as the following:

1. A large vocabulary; using many words easily and accurately
2. An insatiable curiosity; asking many questions; wanting to know "why?"
3. Creativity; arriving at unique methods and new ideas
4. Ability to conceptualize readily; seeing relationships; generalizing
5. Ability to work independently; pursuing challenging materials over an extended period of time.

The list, of course, could be extended. The intent here is merely to describe enough characteristics of such children so that a framework can be established for identifying and programming. Comprehensive descriptions of gifted children will be found in the literature.

In emphasizing the ways in which gifted children are different, there is the danger of creating an allusion to a new species—children who are somewhat more than human. But the basic needs—physiological, social, psychological—common to all children must not be overlooked in the gifted. These children, too, have a need

to be accepted, to be loved, to be recognized, and to become their own unique selves. However, because gifted children tend to mature and develop at a more rapid pace than others—physically, socially, emotionally, intellectually—the “normal” developmental tasks and patterns should be restudied when applied to the gifted.

CHAPTER IV

Identifying the Academically Talented

No school can meet the needs of its academically talented children unless these children are known to the staff. The first step in any plan for identification must be a common understanding and definition of "academically talented." The nature of the program changes contemplated will also affect identification procedures.

Identification has two components—screening and selecting. Screening is the process of assessing, compiling, and interpreting information concerning the abilities and talents of all the children in the school. This survey provides the necessary information for deciding what curriculum changes are desirable, and also provides some tentative data as to the number of children who may need program modification. Selection, the second step, is the process of identifying specifically those children who are to be involved in program change. This process is influenced by a number of things: the design of the program; staff and facilities available for the number of children involved; and individual characteristics of the child, such as his out-of-school activities and his physical and emotional well-being, which may have a bearing on whether he can be expected to profit from the specific experiences which may be provided.

GUIDING PRINCIPLES IN IDENTIFICATION

To aid the school staff in developing a plan for identification, the following guiding principles may be helpful:

1. The screening program should afford every child the opportunity to show the upper limits of his capabilities.

2. Because, at best, some talented children whose test scores are an inadequate measure of their ability are apt to be overlooked, it is necessary to obtain additional information by supplementary means.

3. The abilities and talents identified should be related to the school's definition of the academically talented pupil and to the nature of the special program planned. Locating the child with unusual musical talent, for example, and doing nothing to develop this talent might be somewhat analogous to a physician diagnosing an illness and failing to prescribe treatment.

4. Identification should begin early, preferably in kindergarten or the first grade. This is important for several reasons. First, if a child has outstanding ability at the age of twelve, such ability was most likely apparent at an earlier age. Second, a great deal of pertinent information can be obtained at an early age, especially through observation and biographical data. As some bright children grow older, they acquire behavior that tends to "cover up" their ability, thus making identification more difficult. Third, there is evidence that modifiability of the whole syndrome of habits and attitudes which foster optimal development is greater in earlier than in later years. Finally, the abilities of young children must be known if the instructional program is to be challenging to every child, regardless of his age.

5. The procedure used in identification should be as efficient and effective as possible with a minimal expenditure of human energy and money. One can concoct a scheme so elaborate as to require not only a considerable amount of teacher time and energy but also a battery of full-time experts to operate it. Although

teachers must necessarily be key persons in any identification plan, they should not be so unduly burdened with the procedure that they have neither the time nor the energy to offer instructional guidance to the children identified. Children, too, should be spared the undue burden of time-consuming and anxiety-producing procedures. A good plan for identification should be operationally feasible, appropriate to the age levels concerned, and clearly related to the educational options available.

6. The plan for identification should involve many people—administrators, teachers, psychologists and guidance personnel, special consultants, parents, and even children themselves. The use of so many persons necessitates a well-coordinated effort, facilitated by a well-conceived plan. All concerned must be familiar with the plan and with their own unique role in it. Even then, some one person is needed to give leadership and direction.

7. Descriptive characteristics of gifted children obviously offer clues for identification. However, only the most discriminating characteristics are of any real value. For example, we have stated that, on the whole, academically talented children tend to be physically stronger than their classmates with less academic talent. This particular distinction is so slight, however, that it has little predictive value. (Someone has found that, on the whole, successful executives are taller, heavier, and more handsome than unsuccessful ones. No one suggests, however, that such characteristics are a valid criteria for selecting executives.) This simply means that identification programs should be based largely upon those characteristics which most critically distinguish the academically talented child—behavior indicative of intellectual eminence, creativity, and curiosity.

8. Finally, identification should have a flexible, multi-factored approach. Even estimates of intellectual ability should be based on more than a single measure. No one criterion, no one measure is sufficiently discriminating and encompassing to locate all academically talented children.

TOOLS FOR IDENTIFICATION

Many tools have proved useful to school staffs in identifying academically talented children. Techniques range from standardized tests that purport to measure objectively and validly some specific characteristic, to more subjective observations by teachers. Each tool has its strengths and limitations. A wise use of many techniques is preferable to dependence upon a single one.

Intelligence Tests

Standardized intelligence tests, which are widely used for measuring intellectual ability, have the advantage of tapping a uniform sample of pupil behavior in an objective manner. Scores from intelligence tests, through the years, have proved to be highly predictive of scholastic achievement.

Several tests have been constructed to measure differential aptitudes, including such factors as spatial imagery, verbal comprehension, numerical ability, associative memory, and reasoning ability. These differential aptitude tests are designed to measure the general level of intellectual ability as well as several mental factors which can reveal a pattern of intellectuality within the individual. For this reason they are usually preferable to the general test which does not identify different factors. Particularly above the primary level, after the primary mental abilities are more discrete, the differentiated test seems preferable.

Intelligence tests do have their weaknesses and limitations, and test results are less apt to be misused if the principals and teachers are aware of them. First, the tests, at best, sample a small segment of human behavior. Recent research and theory repeatedly describe intellectual ability as a very complex, multiple-factored phenomenon. Guilford has recently proposed a hypothetical model of human intelligence that has 120 factors. He has reported that more than 50 of these factors have been empirically identified and are measurable.¹

Although efforts have been made to eliminate it, intelligence tests still have a cultural component. The test score for a child from a subculture is apt to be less indicative of his actual ability than is the score for a child from the dominant culture in the school population. Children from deviant cultures tend to be "penalized." Children from impoverished environments are also less likely to measure up to their real potential, for performance on an intelligence test is somewhat dependent on learned behavior.

When one infers that the child who scores highest on a test has superior mental ability, one necessarily assumes that the experiential backgrounds of the children who take the test are similar. This discrepancy between children from different environments is one reason, of course, why schools in more socially and economically favored communities often have a larger proportion of high-scoring children than do schools in less favored communities. This is an admitted weakness of intelligence tests. However, these same factors which affect the child's performance on the test also affect his performance in school. It is, therefore, important to bear them in mind.

Should a school use group intelligence tests, individual tests, or both? Scores from individual tests are usually more accurate, especially those scores which deviate

¹ Guilford, J. P. "The Structure of Intellect." *Psychological Bulletin* 53: 267-93; July 1956.

greatly from the mean, as do the scores for the gifted. The individual test, however, is more expensive, requiring the time of an expertly trained examiner. Few public schools find it feasible to administer individual tests to all pupils. In identifying academically talented children, schools have usually found it practical to screen the entire school population with group tests and then to do a follow-up with an individual test. Follow-up programs vary. Some schools administer the individual tests to borderline candidates for special programs (pupils who are very near the cut-off point) and to pupils whose scores on the group test are suspect by teachers. Other schools go one step further and require an individual test score for each pupil before he is placed in a special program.

Interpreting test scores can be a tricky business. An IQ of 140 computed from the score of one test is not necessarily equivalent to an IQ of 140 computed from the score of a different test. These discrepancies are particularly noteworthy when scores are near the upper limits of the tests. Tests differ in their ceilings. If a school were to set IQ 140 as the minimum for the gifted pupil and use a test that could yield a maximum IQ of 143, few pupils indeed would be identified as gifted. Even when the same instrument is repeated over a period of time (and more than one measurement during the elementary-school years is desirable), scores for a pupil are apt to vary. The highest score achieved is likely to most accurately reflect the pupil's abilities in the areas which this test measures. Extraneous factors in testing can cause a child to score below his ability; he is much less likely to score above his ability. These and many other problems arise in test interpretation and make it important for each school to have, either on its staff or readily accessible to it, the services of a person who has the necessary competence to help the faculty use test results effectively.

Although intelligence tests have their limitations, when wisely used, they offer the single best means of assessing the academic talents of children. Because of their limitations, however, they should be used as one of many techniques for identifying academically talented children.

Achievement Tests

Standard achievement tests, designed to measure achievement in specific content areas, are well known to principals and teachers. These tests are an aid to identifying academically talented children, for if a child scores considerably higher than his peers on a test, he surely demonstrates superior ability. Superior achievement in reading comprehension, vocabulary, and arithmetic reasoning is especially indicative of high ability.

Although achievement scores are usually more reliable than school marks, test scores which deviate considerably from the class mean are more apt to be inaccurate than scores near the mean. Extremely bright children often go off the scale on some tests. This occurrence is generally of little import for distinguishing between superior and average ability, but it becomes extremely important for discriminating among the superior themselves.

An achievement score of one and one-half to two years above grade placement may be considered significant, though the discrepancy, measured in years, is relative to the grade placement of the child. Two years above grade level for a second-grade child is, relatively speaking, indicative of higher ability than two years above grade level for a sixth-grade child.

Personality Assessment

When group comparisons are made, differences in personality traits of academically talented children and

their less talented peers have been observed. However, personality patterns of academically talented children vary greatly. Therefore, measures of these traits are only of supplementary value in identification. Though it is not of primary importance in identifying the gifted, assessment of pupil personality has value, for it sheds light on the strengths and needs of all the pupils, including the gifted. This greater understanding should enhance instruction, guidance, and counseling. There are a few standard multiple-factored personality tests suitable for use with children. For the most part, however, school staffs will have to rely on checklists and observation.

The syndrome of scholastic motivation, achievement drive, and enthusiasm for learning is of considerable importance in the education of the gifted child. Beyond a certain level of ability, the pupil's achievements and general academic success are largely dependent upon his strength in these traits. Some attention is now being given to developing instruments to assess these traits, but because few, if any, suitable instruments for classroom use are currently available, systematic observation by teachers is probably the best general procedure for assessing these traits.

Teachers' Observations

The teacher is in a unique position to identify the child with special ability. He sees the child day after day in a variety of situations and under many circumstances. The teacher witnesses a broader sampling of child behavior than could be revealed by even the most elaborate assessment program. Because of the total setting and because he sees repetition of behavior, the teacher is in a good position to identify those talents which the child consistently displays but which may not show up with great intensity. For example, the teacher can spot the child who continually manifests

ability in social leadership. He becomes aware of the child who shows determination and persistence. He watches the study habits of the child, observing whether the child gets to his work or dawdles, whether he works accurately or rapidly, or both, or neither. The observation of repeated behavior such as this offers insight and information procurable in no other way. Teacher estimates of talent also are valuable in corroborating test data.

Some studies have shown that teacher estimates are not adequate for assessing a child's intellectual level. Teachers often rate as gifted those children who do not measure up to their rating on intelligence tests. On the other hand, teachers frequently overlook children who score very high on intelligence tests. In general, the teacher is prone to overrate children who conform, work hard, give them little "trouble," and are cooperative, kind, quiet, pleasant, and attractive. The teacher is prone to underrate those children who make "trouble," show negative feelings toward her, tend to rebel, are dirty, poorly clothed, and upset the comfort of general classroom routine. Recent studies have shown that teachers like the "high IQ" child significantly better than the "creative" child. Creative children place a high value on a sense of humor and a wide range of interests and do not accept adult standards of good achievement. Such a combination of characteristics may lead a teacher to overlook the highly intelligent "creative" child.^{2,3} Teachers are also apt to misjudge if they fail to consider the chronological age of the child in relation to the class

² Getzels, J. W., and Jackson, P. W. "The Social Context of Giftedness: A Multi-dimensional Approach to Definition and Method." (Paper presented at the American Sociological Society meetings, Seattle, Washington) 1958.

³ Torrance, E. P. "Personality Development of the Highly Creative Child." *The Minnesota Studies of Creative Thinking in the Early School Years*. Research Memo BER 60-1, Bureau of Educational Research. Minneapolis: University of Minnesota, 1960. p. 27-29.

group. In such cases, overage children are apt to be overrated and underage children are apt to be under-rated.⁴

Teachers are human. Their perceptions are colored by their own experiences, but with conscious effort the reliability and validity of teacher observation can be increased. Any attempt at identification of talent should be preceded by intensive training for the task. Teachers must have an understanding of what they are looking for and under what conditions they may expect to find it. Teachers see behavior, not talent or ability *per se*. For this reason a necessary step prior to observation is the identification of specific behavior that is symptomatic of the ability or trait one is studying. Instead of asking the teacher to spot the children with high intellectual ability, the teacher should be asked to identify children who display behaviors which are indicative of high intellectual ability. Many specific behaviors relating to an ability or talent should be observed. This is preferable to a global estimate.

Most schools find it worthwhile to develop observational guides for teachers to use. Although many examples are available in the literature, a faculty should either develop its own guides or adopt one after careful study and, probably, revision in terms of its own needs.⁵

If wisely planned and used, teacher observation can add much to an identification program. Teachers who are carefully observing students become personally involved (much more so than with testing programs)

⁴ Heck, Arch O. *The Education of Exceptional Children*. Second edition. New York: McGraw-Hill Book Co., 1953. p. 391.

⁵ The Portland, Oregon, schools have developed several guides for use in identification. See *The Gifted Child in Portland*. Portland, Ore.: Portland Public Schools, 1959.; A good source book for observational guides for many purposes is: Jack Kough and Robert F. De-Haan. *Teacher's Guidance Handbook*. Vol. I, *Identifying Children with Special Needs*. Elementary edition. Chicago: Science Research Associates, 1955.

and, therefore, more keenly aware of pupil differences, a prerequisite to improved instruction.

Children's Observations

The child lives intimately with his classmates. He interacts with his peers at work and at play, in school and out of school. In this way he comes to know their strengths, abilities, and skills. If properly approached, he will let the teacher know his reactions and thus become a useful source of information in the screening process. One way to secure information from children is through the skillful use of appropriate sociometric techniques. These techniques can be used for helping to identify a multitude of aptitudes and talents. For example, children can help identify classmates who are outstanding in such things as leadership ability, intellectual ability, art, music, mechanics, arithmetic. Any area is open to screening if the teacher can provide children with descriptions of observable behaviors that are indicative of the ability sought.⁶

The procedure is expedited by providing each child with a list of the names of his classmates, thus avoiding questions concerning spelling and possibilities of overlooking classmates. With young children the teacher usually finds it advisable to write each pupil's name on the chalkboard and then to read the questions aloud to the group, allowing time for each pupil to respond by copying the name of his choice. With very young children the teacher should use individual pupil interviews.

Scoring is usually done by counting the number of nominations each pupil receives on each question. The pupil who is named most often is presumed to possess the talent or trait to the greatest extent. Because nominations are limited to a single classroom (children are

⁶ Kough, Jack, and DeHaan, Robert F. *Teacher's Guidance Handbook*. Vol. 1, *Identifying Children with Special Needs*. Elementary edition. Chicago: Science Research Associates, 1955. 94 p.

usually not well enough acquainted with the behavior of the members of a larger group), the results give an average rating for pupils by their classmates. A pupil's score has meaning, of course, only in relation to the group from which nominees are selected.

Parents' Observations

Parents have known the child longer and have seen him react to his environment more often and in a greater variety of ways than have other persons. They have a great deal of pertinent information that can be useful in identifying academically talented children, though for many reasons they are frequently unable to evaluate this information adequately. First, parents usually have not had the opportunity to compare the performance of their child with large groups of children of the same age. Second, the closeness of the parent to the child is a liability as well as an asset in evaluation. Parents tend to be biased, and some are overly ambitious for their children, unconsciously hoping to fulfill their own aspirations through their youngsters.

Although a parent may be unable to make an accurate evaluation of the capabilities of his child, the school should seek the pertinent information he has to offer. This can best be done through parent-teacher conferences. Occasionally, questionnaires are appropriate. In any case, evaluation of information should be done by teachers, and, perhaps, other qualified school personnel. The kind of information sought can be taken from the cue that the gifted child is generally accelerated in his developmental tasks.

Therefore, questions along the following lines are in order: At what age did the child learn to walk? To talk? Did he learn to read, without instruction, before he started to school? What were (and are) the nature of his interests? What material and toys have been of interest to him at various ages? What kinds of questions

has he asked and does he ask? What have been his hobbies? To what extent has he pursued his hobbies? What and how much does he read? What parts of the newspaper does he read? What are his interests and habits in television, radio, movies? What has been his vocabulary development? How much curiosity does he exhibit? How good is his memory?

The idea is to get a developmental picture of behaviors and interests from which teachers may infer ability and talent. This information, which most parents are able to furnish, can be gathered in a routine fashion when the child enters school.

Cumulative Record

A first glance at the foregoing discussion may give one the impression that an identification program is a hodgepodge of fact finding, with tests, questionnaires, and checklists floating around and little chance of it adding up to anything. The child's permanent cumulative record is the place where all pertinent information should be processed, compiled, and recorded.

The cumulative record should be a developmental story of the child from his entry into school until the time of his leaving. The record should contain anecdotes written by teachers, records of performance (including marks in subject areas), notations concerning special awards, special strengths, problems, and weaknesses. It should also include physical and mental health data and estimates of energy output. This record grows as the child develops. It is a case history in data form and, if it is accurate, an identification tool in its own right.

Though most schools use a common form for all students, the Portland, Oregon, schools have a special Educational Enrichment Record for pupils who have been identified as exceptionally talented.⁷ In either

⁷ Portland Public Schools, *op. cit.*, p. 160.

case, the form should be designed to fit the school's identification program.

Clerical help should be used to record data. This relieves teachers of time-consuming paperwork that adds little to their professional competence. Using clerical help becomes particularly important if schools employ an elaborate screening program.

The child's cumulative record is as essential to the teacher who would individualize instruction as the child's medical record is to the pediatrician who would treat his illnesses. It is of little value, though, unless the teacher has free access to it, understands it, and uses it intelligently.

IDENTIFICATION PROGRAMS IN ACTION

No two identification programs are apt to be alike. They range from very simple to very complex ones. The following program descriptions are offered as being somewhat representative; it is not necessarily suggested that they are ideal or even adequate. It must be remembered that such programs are not static. Frequently, by the time a description of its program can be circulated in print, a school has improved its procedures.

*San Diego City Schools, California.*⁸ In its 67 elementary schools San Diego operates an enrichment program coupled with selected acceleration of its gifted pupils. A city-wide screening program is used in which teachers and principals may refer pupils for a *Stanford-Binet* individual intelligence test. Referrals are based on a study of pupil scores on group intelligence tests, apti-

⁸ Havighurst, Robert J.; Stivers, Eugene; and DeFman, Robert F. *A Survey of the Education of Gifted Children*. Supplementary Educational Monographs, No. 83. Chicago: University of Chicago Press, 1955. p. 42. Note: This publication briefly describes several programs in action. Procedures in identification have been extracted here. For more complete coverage on many schools the reader is invited to see the monograph cited.

tude tests, achievement tests, pupil marks, and teacher observation of performance. Siblings of gifted pupils are also referred for individual testing. Pupils who score at least three (3) standard deviations above the mean (an IQ of approximately 148) are defined as gifted. Parents of children identified as gifted are then notified and interviewed to procure additional information and to seek their cooperation.

*Public School No. 241, Brooklyn, New York.*⁹ Public School No. 241 in Brooklyn is one of New York City's elementary schools which has a special program for intellectually gifted children. Serving an upper middle-class community with an enrollment of over 1300 pupils, the school has four special classes. All third-grade pupils in the school take intelligence, reading, and arithmetic tests. Pupils with IQ's of 130 or higher, who are at least two years above grade level in reading, are considered for the fourth-grade special class. The teacher and supervisor, in conference, carefully study and discuss each case, giving particular attention to social maturity, emotional stability, leadership potential, achievement, and IQ.

*Allentown Public Schools, Pennsylvania.*¹⁰ Gifted children from Allentown's 21 elementary schools are placed in three classes (approximately Grades 4-6) in a wing of one building. Screening is done by administering a group intelligence test to all children during the second half of the third grade. Children who have an IQ of 120 or higher, based on this test, are given a standardized reading test. Those scoring at the fifth-grade level or above are given the *Wechsler Intelligence Scale for Children* (an individual test). If a child's full-scale score is 125 or higher and if his parents consent, he is permitted to join the special group.

⁹ *Ibid.*, p. 73.

¹⁰ *Ibid.*, p. 90.

*Cleveland Public Schools, Ohio.*¹¹ Cleveland has "Major Work Classes" for elementary-school children with high academic talent. Teachers and other staff members observe pupil classroom performance and examine each pupil's group intelligence and achievement test scores. High-performing children are referred for a *Stanford-Binet* individual intelligence test. Any child with an IQ of 125 or higher is eligible for a Major Work Class if his maturity, social adaptability, emotional stability, and health are, in the judgment of the staff, satisfactory. Parents must consent to special placement and must accept the responsibility for getting the child to one of the schools where special classes are offered.

*Palo Alto Unified School District, California.*¹² In the Palo Alto schools the basic responsibility for identifying gifted children is in the hands of the classroom teacher, under the principal's supervision. Teachers study the cumulative records of pupils, paying particular attention to scores on mental maturity and achievement tests. Teachers observe their pupils, looking for outstanding performance, skills, and talents. In studying their children, teachers often request the services of special personnel. Pupils whose records indicate high ability are referred for individual testing.

*Portland Public Schools, Oregon.*¹³ The Portland, Oregon, schools have a very extensive program for talented children. Efforts are made to identify and develop creative, intellectual, artistic, and leadership capacities. Screening for intellectual talent in Portland's elementary schools is a continuous process from kindergarten through the eighth grade. Both observation and standardized tests are used. Reliance on tests increases as

¹¹ *Ibid.*, p. 83.

¹² California Elementary School Administrators' Association. *The Gifted Child: Another Look*. Monograph No. 10. Palo Alto: National Press, 1958. p. 3.

¹³ Portland Public Schools, *op. cit.*, 1959.

children grow older. The fifth grade is a crucial year in Portland's screening program for intellectual talent. Early in the fall all fifth-grade pupils are ranked according to scores previously received on (a) nonlanguage factor of the *California Test of Mental Maturity*; (b) language factor of the same test; (c) average arithmetic achievement; and (d) average reading achievement. Pupils who do not perform quite so well but who are specifically recommended by their teacher, become eligible for the next screen, a "ceiling" test. A more difficult test, the *SRA Primary Mental Abilities Test, Intermediate Form* (for ages 11-17) is used as the ceiling test. The ceiling test is first administered as an "ability" test (according to directions), then as a "power" test in which pupils are given a longer work time than is prescribed. All the subscores for each pupil are recorded. Then, approximately the top 10 percent are designated as intellectually talented. The percentage selected varies from school to school, depending on the actual level of ability of pupils within the school. Despite the availability of data, final selection still requires judgments by one or more professional persons.

The Portland schools also screen for special talents in seven areas: art, creative dance, creative drama, creative writing, music, mechanical talent, and social leadership. Teacher observation, sociometric techniques, interest inventories, and specially devised tests are used in screening. Approximately the top 10 percent of the pupils in each talent area are identified as gifted. There is, of course, a large overlap. Talented children tend to be talented in several areas. The Portland experience has been that a compilation of all pupils selected in all areas will constitute about 20 percent of the total school population.

Because of the screening in many areas of talent, care must be taken to avoid overloading faculty and children at any one grade level. Portland has developed the following time schedule in testing for special talent.

TALENTS	GRADES							
	1	2	3	4	5	6	7	8
Art				x		x		
Music				x	x			
Creative Writing					x	x	x*	x*
Creative Dramatics					x	x		
Mechanical Ability							x(boys)	
Creative Dance	x		x*		x*			
Social Leadership			x	x*	x*	x*	x*	x*

* Tests are optional.

In Portland, a coordinator for the special program is designated in each building. The teacher who is assigned as coordinator devotes half of his time to coordinating the program. This provides him with the time to keep records, order supplies and materials, schedule consultants, help plan programs, and carry out other tasks necessary for a smoothly functioning program.

CHAPTER V

Curriculum Issues

Identification is not an end in itself. The best plan for identifying academically talented children is useless if the staff has no plans for following through with program changes. The real crux of education for academically talented children is not just whether we know who the pupils are, but whether we know what to do *with* and *for* them. This is a curriculum issue.

In planning experiences for academically talented children, several important problems must be faced: (a) What shall be the goals or objectives sought? Are there any objectives that are unique to or of special importance for these children? (b) What are some of the psychological bases upon which a program for academically talented children should be founded? What do the nature of the objectives sought and the nature of the child himself suggest for a learning environment? For methodology? For content? (c) In the context of the answers to these questions, what are appropriate learning activities?

OBJECTIVES OF EDUCATION FOR ACADEMICALLY TALENTED CHILDREN

A review of the literature related to the education of gifted children convinces one that in the realm of objectives there is some disagreement and a great deal of confusion. There are those who take the position that if the objectives of education for academically talented children do not differ from the objectives for

other children, there can be no need for special instructional plans for the academically talented. Others maintain that the general purposes of American education are common for all children regardless of ability, sex, age, or locale.

Goals

For more than two decades the accepted basic frame of reference for educational objectives in this country has been the "purposes of education" formulated by the Educational Policies Commission in 1938.¹ The Commission organized these general purposes into four major areas: self-realization; human relationships; economic efficiency; and civic responsibility. To be sure, these are broad, general areas for pupil development. The stated purposes are for all children—of all grades, abilities, and geographical locations. The purposes are directional, that is, stars to shoot for, not floors to stand on or hurdles to pass. They are not minimum essentials which one must accomplish and then pass on to higher levels. For example, one aspect of self-realization, as given in the statement of the Policies Commission, reads: "The educated person reads the mother tongue effectively." Another part states: "The educated person has an appetite for learning." At what point might one say these goals have been accomplished? Goals such as these give us direction.

Goals for academically talented children. Viewed in their broadest perspective, the educational objectives for academically talented children are essentially the same as the objectives for all children. This cannot be construed to mean, however, that educational activities and experiences at any given age should be identical for all children. Gifted children may be expected to achieve many educational objectives to a greater degree

¹ Educational Policies Commission. *The Purposes of Education in American Democracy*. Washington, D.C.: National Education Association, 1938. 157 p.

than their less gifted peers, and they may be expected to reach a given level of understanding and skill at an earlier age. This is compatible with the basic premise that a program for academically talented children should be viewed as part of the larger task of providing a differentiated instructional program for children with varying abilities and interests.

Adapting instruction to the individual needs of academically talented children necessitates a particular focus upon those objectives that are related most closely to the areas in which these children excel. This does not mean that other objectives should be neglected; neither does it mean that they are less important. The implication is simply that greater instructional adjustment is necessary in some areas than in others if these children are to move effectively toward desired goals.

Kincaid conducted a study to determine which objectives of education have particular importance for gifted children. He found that the most important objectives in rank order of importance as rated by supervisors, principals, teachers, guidance directors, parents of gifted pupils, and gifted high-school pupils were the following: (a) effective thinking; (b) basic skills; (c) citizenship; (d) understanding of environment; (e) appreciation of beauty; (f) world understanding; (g) character and human relations; and (h) vocational competence. He also found that objectives in four other areas—use of time; health and safety; successful family life; and consumer effectiveness—were of about the same importance for gifted children as for other children. Kincaid concluded that in planning programs for the gifted, special consideration should be given (in the order listed) to objectives in the eight areas which were rated of greatest relative importance.²

² Kincaid, Donald J. *Objectives of Education for Gifted Children in California Elementary Schools*. Research Résumé No. 4. San Francisco: California Teachers Association, 1956.

This does not mean that other objectives are unimportant for the gifted child. Rather than assume, for example, that the development of basic skills in gifted children is of greater importance than the development of understandings and habits in health and safety, a more tenable position would be to assume that greater curriculum adjustment might be needed in developing basic skills and effective thinking than in other areas. We dare not make the assumption that any of the objectives just listed are unimportant in the education of the gifted. The budding young mathematics wizard needs help in developing his mathematical potentialities, but the question of whether, at some future time, he will use his skill to help his fellow man or to defraud his employer is of no small import.

Strang has shown great concern over the imbalance in the objectives of most special programs.³ She has observed that few programs give more than lip service to developing the pupil's moral and spiritual values and the ideal of social usefulness and service. She has wisely noted that a program which results in a self-centered person, concerned exclusively with his own success and advancement, falls far short of the ideal.

Those areas of the curriculum most likely to need adjustment in dealing with the academically talented are those in which the greatest demands are made for the student to use abstract symbols, to think critically and creatively, to apply knowledge to novel situations, and to generalize. These, of course, represent areas in which intellectually talented children, by definition, excel. But because these children are human, and particularly because they have great potential, the school must also accept as a fundamental objective for their education the development of ethical character. The school should strive to develop in each of these pupils

³ Strang, Ruth. "A Critical Analysis of Programs for Gifted Children." (Address before the American Association of School Administrators, Atlantic City, New Jersey) 1960.

a sense of social purpose, a value system which directs the individual to use his abilities for humanitarian ends. Again, one is cautioned that these are not the only areas in which the gifted must function. Neither are they areas from which less gifted children are excluded. They simply represent the areas in which the typical instructional program is apt to need special attention if it is to meet the needs of and fully challenge academically talented children.

EMPHASES IN TEACHING-LEARNING

The nature and quality of learning is greatly affected by the teacher's orientation to the teaching-learning process. The following section is intended to focus upon an orientation to teaching-learning that is probably good for all children, but it is of particular value for the education of academically talented children.

Intellectual Curiosity

Many teachers have observed that young children come to school with an insatiable curiosity and zest for learning but that this enthusiasm tends to diminish as they progress through school. We are not sure whether this is a valid observation. If the desire to know does diminish, we still do not know whether it is a natural phenomenon in child development or whether the school actually dulls enthusiasm for learning. In either case, the school not only has the opportunity but the obligation to nurture intellectual curiosity. Insofar as possible, the school should foster, as an attitude, the desire to know just for the sake of knowing.

The intellectual curiosity of the teacher is probably the key to this development. The teacher who manifests a zest for learning not only in the classroom with

children, but outside the classroom as an educated adult, becomes a model for children. Attitudes, good and bad, are contagious, but this enthusiasm cannot be faked by the teacher, for his own intellectual curiosity is revealed in many subtle ways.

The teacher's basic orientation to teaching-learning and methodology can either foster or fail to nurture curiosity. Children, especially bright ones, ask many questions. Usually this is indicative of a desire to know. Teachers can significantly lessen this questioning attitude by discouraging questions ("We don't have time for that!"), and by giving simple, pat answers to all questions. Children should be encouraged to question, to "dream," and to wonder. Under teacher guidance, they should be allowed to discover and find out for themselves. This approach implies less "spoon-feeding" by the teacher and more guidance. More flexibility is required. Rigidly sticking to narrowly prescribed bounds and having facts to be learned laid out in neat bundles may appear to be an efficient technique, but it may be this very efficiency that kills enthusiasm for learning in many children.

Problem Solving

In a sense, problem solving is both a process and a product. Long accepted as sound methodology, problem solving is a necessary process for learning to generalize—to see the relationship between two or more concepts. Equally important, problem solving is a desirable skill in itself and should be a conscious teaching goal.

The problem-centered approach to learning is valid with all children. Gifted children, especially, profit from a problem-solving approach as contrasted with rote learning (arbitrary associations). The ability to generalize and the ability to apply information to new

situations—both components of the problem-solving process—are characteristics of the talented.

The development of problem-solving ability must be based on careful teacher-pupil planning. The teacher cannot simply present the child with problems to solve and then stand aside. He must stimulate, encourage, and guide. He must help pupils to identify problems and provide background which will aid them in seeking solutions. The teacher can stimulate children by having them read widely, take field trips, see movies, and visit with resource persons, and by structuring the environment in other ways so they will have many opportunities for rich interaction with it.

Solving problems requires skill in research. The gifted child should develop research skills in both depth and breadth, and he should begin developing them quite early in his school life. In fact, research, for the gifted, might well become a way of life, both in school and out. It is this research approach to all of life, thenceforth, which rather neatly distinguishes him from his less gifted fellow men.

Research requires more than skills; it also requires materials. An abundance and variety of reading materials as well as other work materials, equipment, and laboratories (work centers) should be available for working out and verifying tentative answers.

The academically talented child profits in many ways from problem solving. First, the process is basic to out-of-school learning. Second, it promotes curiosity. Rote learning is especially deadening to the gifted child who acquires information rapidly. He needs opportunities to use his information for purposeful ends. Third, learning that results from problem solving is more readily transferable to new situations. Fourth, the approach permits the pupil to pursue avenues of interest as an individual. If he is afforded the time and materials, he can explore to the depth that meets his purposes, experi-

ment in creative ways, and achieve ends that are individual in nature.

Critical Thinking

Although the gifted child can absorb information in quantity, this in itself is of little importance and, in fact, can even be dangerous unless the child is taught to evaluate information critically. He must be taught to doubt as well as to believe. This ability to think critically is essential in problem solving.

There is no evidence that skill in critical thinking is necessarily a product of any particular subject. Children can be taught to think critically in social studies as well as in arithmetic. The quality of teaching does make a substantial difference. There is, however, no set formula to follow in thinking or in teaching. In general, the child must learn to question, to weigh evidence, and to make his conclusions tentative.

The school cannot adequately help children develop the ability to think critically and to reason unless these skills are consciously accepted as instructional goals. The school must also understand that the ability to reason and evaluate is developmental and takes instructional time. Only on the surface does this approach appear to be less efficient than "giving them the right answers."*

Basic Skills

The gifted child can develop basic skills more rapidly and with less repetitive practice than the less gifted child. Because of this, and because proficiency in these skills is necessary for further intellectual development, the gifted child should be accelerated in skills of observ-

* For an excellent treatment of critical thinking as an educational goal see: H. Gordon Hullfish and Philip G. Smith. *Reflective Thinking: The Method of Education*. New York: Dodd, Mead and Co., 1961.

ing, listening, reading, writing, speaking, computing, and research. To be sure, the school should not push the development of these skills beyond their social and intellectual usefulness to the child. Nor should the skills be developed in isolation from content and social context. But the child should not be held to an age-grade level in development in these areas. He has a need for both enrichment and acceleration.

Creativity

The academically talented child frequently possesses high potential for creative endeavor. (Creativity is used here in a broader context than the creative arts; creative thought can be applied to any area of human activity.) Although we know relatively little about the process of creativity, and even less about how to teach it (or, indeed, whether it can be taught), recent research and thought offer some "hunches" that are worthy of consideration.

There seems to be general agreement that creativity is fostered in a permissive environment, an environment that encourages a flow of new ideas and independence of thought. If this is true, then the classroom climate must foster psychological safety and freedom, and encourage individual and varied responses. The child should, insofar as possible, be free from fear of criticism.

For the teacher, who has the responsibility for a class of 30 children, this may produce a dilemma. Obviously the child cannot be free to choose his own unique responses in every situation. Neither the social environment nor the knowledge of the subject involved permits this. Living together implies some common agreements. The child may be creative and build his own number system, for instance, but in the framework of the one commonly used he has no choice in the response that two and two are four. Nonetheless, schools are prone

to require conformity. When allowed to do so, gifted children often propose sound but unexpected solutions which may disconcert teachers who anticipate more prosaic responses. It is important, however, that teachers do not block such creative thinking but instead foster a climate of psychological freedom and safety in which children feel free to come up with new and different ideas.

Fostering a climate conducive to creative thought is essential, but it is not enough. It takes time for children to be creative in solving problems. In the interest of time and efficiency, there is a strong temptation to tell the child what is "best." This approach, the very antithesis of the creative approach, forces the child to conform by accepting another's idea.

There are many opportunities for creative thought in the problem-solving approach to learning. Whether the topic is "How To Improve the Environment in Our Cafeteria," or "Controlling Human Diseases," children can be creative in analyzing and formulating problems, as well as in planning ways to attack problems and report findings. If these creative opportunities are to be realized, the teacher cannot make all the decisions. Children should be permitted not only to propose and select alternatives; they should have the security of knowing that they can fail in their efforts without losing self-respect.

Several classroom techniques are now being tried to stimulate the flow of new ideas.⁴ Brainstorming is a group technique. The group must become "freewheeling"; ideas, the more spontaneous the better, flow in quantity. No evaluation of an idea is permitted during a session; all ideas are accepted and recorded. Evaluation and selection follow. This approach can often be applied to problem-solving situations.

⁴ Wilson, Robert C. "Creativity." *Education for the Gifted*. Fifty-Seventh Yearbook, Part II, National Society for the Study of Education. Chicago: University of Chicago Press, 1958. p. 108-26.

Activities that solicit uncommon responses may encourage originality. For example, the typical pupil report to the class can be structured so as to rule out reading or telling the report. The solution of novel problems without the aid of commonly used materials may also encourage originality. Sensitivity to problems may be increased by having pupils question things they take for granted. Questions such as "What would happen if no living thing ever died? What would happen if air were heavier than water?" may stimulate a greater awareness of problems.

All children have some ability to think creatively. If we assume that the ability to think creatively can be developed, then the school must examine its structure and practices to make sure that creativity is being fostered and, indeed, rewarded.

Consistent System of Values

Because the gifted child acquires an abundance of knowledge, he may need guidance in integrating it into a consistent system of values. He should be encouraged to examine and test his values within the context of his ever-expanding experience. As he gains new knowledge, he should be guided to make adjustments in his own system of values, even to the point of accepting himself as an individual who may, at times, be out of step with the crowd.

Independent Work

The academically talented child usually has the ability and the need to pursue many learning activities as an individual. He has, or should have, more highly developed research skills, interest and attention spans of longer and higher quality, and he may have more clearly defined and intensely conscious purposes. The classroom procedures should permit and encourage him to pursue his self-selected goals independently. This

can frequently be done in the context of an ongoing class project, but occasionally he may strike out in an area of interest that is not directly related to work being done by others. In either case, he needs time, materials, and some guidance in planning and carrying on independent work.

THE PRINCIPAL AND THE LEARNING ENVIRONMENT

As noted earlier, the facets of the teaching-learning process are interrelated. The principal, more than anyone else, affects this orientation. He sets the tone for the entire school and influences the learning climate in each classroom. His influence is felt in both obvious and subtle ways, not only by what he does and says, but also by the kind of person he is. He influences the school's orientation to teaching-learning most keenly by his own expectations in regard to quantity and quality of learning, by the freedom and flexibility he encourages, by the time schedule he sets, and by the materials he provides.

When great emphasis is placed on rote learning, on the accumulation of isolated facts, and on the compilation of vast amounts of information, and when evaluation of educational progress is limited to measurement of the amount of information children can recall, teaching-learning situations reflect this orientation. When teachers are held accountable for this kind of learning, they will feel compelled to cover the prescribed material; they will "finish the book." They will resort to "telling" instead of guiding children to discover for themselves. Preferable, of course, are broadly conceived problem projects in which creativity, critical thinking, and problem solving can flourish, and within which the child can learn to apply his skills and information.

If a teacher is to work effectively with children, he should have the freedom to be flexible in both content and methodology. If the child in the classroom is to

be encouraged by his teacher to think creatively and critically, and to try new ways of doing things, the principal must grant this same freedom and encouragement to the teacher. This means that the teacher should have the freedom to fail in an undertaking. If he does not have this freedom, he is not really free to be different.

The quantity and quality of available instructional materials set limits on teaching-learning situations. A problem-centered approach requires library and laboratory facilities and use of community resources—people and places. The principal is the key person in seeing that such resources are available and used effectively.

DIMENSIONS OF LEARNING

In planning learning activities for children attention should be given to all dimensions of learning—particularly the dimensions of concepts and generalizations. This is important for any child; for the academically talented child it is extremely important for, as noted previously, these children, at a given time, have usually developed greater understanding of concepts than their less talented peers. Similarly, they acquire a given level of understanding at an earlier age.

No one, not even the gifted child, learns everything. No one ever learns all there is to know about a single concept or generalization. Understanding a particular concept or generalization falls somewhere on a continuum of meaning, as illustrated below.⁵ Consider, for example, the concept “island.” The meaning of the



Continuum of Meaning

⁵ Brownell, William A., and Hendrickson, Gordon. “How Children Learn Information, Concepts, and Generalizations.” *Learning and Instruction*. Forty-Ninth Yearbook, Part I, National Society for the Study of Education. Chicago: University of Chicago Press, 1950. p. 92-128.

concept for an individual at a given time falls somewhere between O and N. For the child who has developed little meaning (near O), it may be largely verbal, "a body of land completely surrounded by water." Direct experience with a particular island might move the child's level of meaning toward N. Meaning develops through a variety of experiences. Richer understandings emerge as the child learns related concepts—as he considers such factors as communication, transportation, and isolation. At some point along the continuum meaning develops beyond a physical island and extends to social or psychological phenomena.

The level of meaning for the academically talented child is apt to be farther along the continuum at a particular time. His level of meaning might be at point B when his less academically talented age-mate's level of meaning is at point A. Similarly, the academically talented child arrived at point A before his age-mate.

The way in which meaning is developed is also worthy of note. *Meaning comes to the individual through reconstruction of his experience.* Neither the teacher nor anyone else can give the child meaning. The task of the teacher is to plan activities and to structure the environment, anticipating that the child will have experiences that further develop meaning. Development and reinforcement of meaning as an objective requires *varied* experience, rather than simple *repetition*.

In terms of curriculum, the most difficult, yet most important deduction from the illustration is that in order for meaning to continue to develop, related concepts must be learned. No concept or generalization develops in isolation from other concepts and generalizations. Even if one assumes that the meaning of a single concept can be developed in isolation, the development reaches a point of diminishing returns unless the base of experience is broadened. This interrelatedness of

depth and breadth of learning can be illustrated by visualizing a pile of sand. As more sand is poured on the apex, the base also broadens. If we let the height of the pile at the apex represent the depth of meaning and the area of the base represent the breadth of experience or related understanding, we see an interdependence of the two dimensions of learning. In order to get more depth, we must increase the size of the base. The analogy, of course, is not entirely accurate, for one could increase the size of the base without necessarily increasing the height. This happens when experiences are not related closely enough to provide greater depth.

At what point on the continuum has the child gained sufficient meaning? When should he move to concepts of higher level? A usual procedure in curriculum planning is to formulate a sequence of concepts, generalizations, and processes, and to presume that they should be developed in the prescribed order. (One may note that a sequence can be prescribed and, in a way, taught.) Whether the child learns in this sequence is another thing. Assuming a sequence, however, when the gifted child reaches a given level of understanding before his classmates, should he move to the next higher level or strive for broader and deeper meaning of the concept being developed?

If the teacher seeks to move the child to the next level, this is acceleration. (Acceleration is an elusive term. It is used here in a curriculum context. The use of the term in an administrative context will be discussed later.) If the teacher seeks to broaden experiences without going to the next concept in the sequence, this is horizontal enrichment. (Again, enrichment is used here in a curriculum sense.) Frequently, acceleration is said to be vertical and enrichment is said to be horizontal. If our analogy is correct, however, acceleration and enrichment have both dimensions. The choice is not whether we accelerate or enrich. From the viewpoint of the child and his learning, we do both. Even

if the sequence is valid, the concepts in the hierarchy are not mutually exclusive. In our efforts to enrich through related experiences, we build depth and breadth. In doing this the child surely moves to more advanced concepts.

Consider teaching the process of dividing by a two-digit divisor. Not all pupils reach a given level of understanding at the same time. The teacher must decide whether, at a given level of understanding, the child should move on to a more complex process, perhaps division by a three-digit divisor, or strive for deeper understanding of two-digit divisors through broader application and related experiences. If the child does not move on to a higher order, he may soon reach a point of diminishing returns in his efforts at further understanding. On the other hand, the development of understanding in use of three-digit divisors may give him more understanding of two-digit divisors.

The distinction between the two alternatives, breadth and depth, becomes less obvious in other areas of learning. In social studies, what is the sequence for developing an understanding of the interdependence of man? In reading, development can move in several directions simultaneously: reading more broadly (greater variety of material); reading materials of greater complexity (more abstraction); or reading materials with more difficult vocabulary and concepts.

There is no magic way to determine the adequacy of meaning for a child. It varies, depending on the purposes and interests of the child and the nature of subject matter. Gifted children generally need to and can develop deeper meaning. The concept is usually adequate for a child when it meets his purposes. There is no clear-cut way for the teacher to know when the child should strive for more depth or when he should move to a higher level process or concept. Again, the purposes of the child are a determinant. He achieves greater depth of meaning only when it serves his purposes. In

planning for children, it is well to remember that experiences should be varied and should provide both depth and breadth. One should also remember that not all experiences are educative. The gifted child does not need "more of the same." Probably our most common mistake is to assume that the child can have worthwhile experiences that provide horizontal enrichment (breadth) without at the same time moving vertically. *Intellectual development is never unilateral.*

MOTIVATION

What forces operate to motivate an individual to learn? What can be done to build within the child a desire to develop his talents? Learning is an individual matter, and motivation of the individual is an important component of teaching all children, including the gifted.

The Need To Know

Whether the need to know is a basic human need is open to question. Many suggest that it is. Maslow, for example, lists the need to know and understand as a basic human need that is instinctoid in nature but has less potency than physiological, safety, love, and esteem needs. In Maslow's hypothetical framework, if the more potent needs are fulfilled, the child recognizes, and his action is motivated by, an intrinsic need to know and understand. On the other hand, this need to know and understand may be derived from more basic or potent needs. If the child learns that by knowing he can gain the esteem or love of others, including that of the teacher, he is motivated to know, not for the sake of knowing, but because his knowing fulfills, indirectly, a more potent need.⁶

⁶ Maslow, Abraham H. *Motivation and Personality*. New York: Harper & Brothers, 1954.

The school behavior of pupils motivated by high prestige may be different from behavior intrinsically motivated.⁷ Pupils motivated by prestige are more apt to display greater competitiveness and faster working rates. They are more apt to conform to the school's demands and, consequently, be rated as high achievers by teachers. The child with high intrinsic motivation is usually less mindful of social approval and school expectations. Although he may be highly intelligent and achieve significantly in his own personal endeavors, the school frequently views him as an underachiever and somewhat of a rebel.

Developing the need to know. In educating the academically talented child, the development of the need to know is, perhaps, the most important instructional task. Gifted children frequently seem to have an intrinsic yearning to know and understand. This may even be a basic characteristic of giftedness. This need to know can be intensified and reinforced in several ways. First, the gifted child should be guided to formulate an accurate self-picture of himself. Not only should he understand himself and his capabilities, but he should accept this self-concept together with an attitude of social responsibility. The individual's concept of himself and the degree to which he accepts that concept influence self-realization. Second, this intrinsic need to know is enhanced if more basic needs are met. The school should do what it can to see that physiological, love, and esteem needs are met. The child who is esteemed and loved is more apt to have an intrinsic desire to learn. This poses a problem for the teacher, for the child who is motivated intrinsically is less mindful of teacher desires and expectations. Nonconforming behavior may, in turn, make it more difficult for the teacher to offer love and esteem.

⁷ Ausubel, David. "Prestige Motivation of Gifted Children." *Genetic Psychology Monographs* 43: 53-116; February 1951.

Prestige is often a motive for knowing. This is possible, of course, only if intellectualism is prized by those who are valued by the child. If a child's peers do not value intellectual growth and academic status, the child who succeeds significantly runs the risk of social isolation. This is a cultural dilemma. In a social order which may deride intellectual pursuits and which may not value academic talent, it takes a courageous child to withstand the social pressure and follow his own intrinsic need to know. The application can be made to a local community or a school. The school climate should be one in which academic talent is prized by all—patron, teacher, and child. Perhaps the greatest contribution of the efforts in recent years to focus on gifted children has been that of changing public attitudes toward a climate more favorable to intellectual development.

The nature of instruction and the learning task affect the level of motivation. McClelland has observed that if a child is to continue to get pleasure from an achievement situation, he must continually work with more and more complex objects or situations.⁸ If he works long enough at a given level of mastery, his expectations of what can happen become completely confirmed. This prediction with certainty causes him to become bored. Having the gifted child do more and more of a task (simply because he can), without increasing its complexity, is a sure way to develop an underachiever and to lessen enthusiasm for learning.

Research by McClelland and others also indicates that the achievement motive is closely related to the severity of independence training in childhood. Though this conclusion is most pertinent for child-rearing practices, it offers clues for instruction. If the school is to foster the development of high achievement motives, spoon-feeding should be diminished, and children should be

⁸ McClelland, David, and others. *The Achievement Motive*. New York: Appleton-Century-Crofts, 1953.

encouraged toward more independent action and self-reliance. One should note, however, that the achievement motive does not necessarily imply a direction in which the child is motivated. The motive to achieve could lead the child toward other than intellectual pursuits.

The development of stronger achievement motives within most children requires some structuring of performance standards, some demands by the parents, the school, and the surrounding culture. The child should begin to perceive performance in terms of standards of excellence so that discrepancies in his behavior from a perceived frame of reference are discernible to him. He can then alter his performance toward the standard of excellence. The gifted child must understand his own capabilities and accept a standard of performance in keeping with them. The school should expect from him, and he should set for himself, a higher standard of performance than that set for less gifted children.

DEVELOPMENT OF TALENT IN A CULTURE

The school reflects the values of the society which supports it. Only indirectly does the school establish those values. The development of academic talent in a school is greatly dependent upon how highly academic talent is valued by the culture. Pressey has suggested that we have given too much credence to the inborn constitutional factors of ability and not enough emphasis to favorable concomitant factors which operate during the growing years.⁹ He has drawn some interesting conclusions about cultural factors conducive to the development of talent by comparing the development of musical talent in Europe a century or more ago and the development of athletic talent in modern America. The

⁹ Pressey, Sidney L. "Concerning the Nature and Nurture of Genius." *Scientific Monthly* 81: 123-29; September 1955.

logic of these conclusions leads us to suspect that they are applicable in the development of other than musical and athletic talent.

First, talent is developed when there is a prevalent cultural interest in the field—talent must be culturally valued. Second, talent is developed through (a) excellent, early opportunities and encouragement to develop the talent; (b) early and continued guidance of high quality; (c) frequent and progressive opportunities for practice; (d) opportunities for association with outstanding individuals in the same field; and (e) stimulation from many successes for which the individual gains recognition.

If these generalizations are valid for other talents, then the school which would develop academic talent in its pupils starts by championing intellectual performance and building this value into its pupils and community. The school works with parents as well as with children, for children tend to adopt the values of their parents. The school provides models of prestige who are academically talented and who value high academic performance. The faculty members themselves should be these models, but they should also capitalize on the talent in the community by bringing into the school resource persons who are recognized as having high abilities and interests in various academic endeavors.

A positive attitude toward academic talent is also enhanced in the school by rewarding high academic performance. Activities such as science fairs, art exhibits, and honor assemblies have been used, though some question the value of extrinsic motivation that comes from these activities. Actually the greatest concern springs from a misuse of such activities. In any case, the real challenge is to build a school climate in which high academic performance is respected and esteemed by all.

Building a positive attitude toward academic talent is only the beginning. The school develops academic talent

through a carefully designed instructional program—a program that begins early, allows the child to use his talents in socially rewarding ways as they develop, and provides for recurring successes and recognition.

Patterns of Organization

Of the many issues debated in the area of education of gifted children, none is as controversial as organizing for teaching. As viewed by some, a plea for special programs for academically talented children is tantamount to an endorsement of a particular organizational scheme—specifically, ability grouping. The concern over organizing techniques is somewhat of a paradox—no organizational plan will of itself insure effective teaching. This is not to suggest that organization is not important; obviously, some organizational plan is necessary in order to bring child and teacher together in a teaching situation. It is regrettable, however, that the importance of the plan employed is frequently exaggerated.

Because some plan is necessary, school staffs must come to grips with such controversial topics as grouping practices and acceleration. Insofar as possible, alternatives should be objectively weighed in light of the best expert opinion, available research, and conditions within the local community.

ENRICHMENT

If we are to do something for the academically talented, should we enrich or group? The answer is simple—we may do both. If two or more teachers are employed, some grouping plan is necessary. The question becomes one of selecting criteria to be used. In itself, enrichment is not an organizational device but the very core of any program for the gifted, regardless

of the organizational plan used. Enrichment is possible in regular classrooms as well as in special groups. In fact, the avowed purpose of both special groups and acceleration is to facilitate enrichment.

Enrichment implies that the typical classroom diet is inadequate for the academically talented child. It is a means of providing learning activities that challenge the child and expand and deepen his understanding.

Brown compares enrichment with a dog going for a walk in the country with his master.¹ The man walks straight along the road and arrives back home in an hour and a half. The dog covers the same road and comes home at the same time. But during that hour and a half the dog has traveled not 5, but 15 miles of countryside. He has investigated openings in drains and hollow logs, and pursued his quota of squirrels. He has sniffed at strange objects, bristled and barked at other dogs, chased 2 real and 11 imaginary rabbits, and run, intermittently, in every direction. As a result of these experiences, his life has been enriched. He has arrived home a wiser and a stronger dog.

Intensive and Extensive Enrichment

Enrichment develops in two dimensions—depth and breadth. This, of course, is in keeping with the dimensions of learning discussed earlier. Intensive or vertical enrichment results in greater depth of understanding. This comes about by permitting the child to follow his special interests to a point of “closure.”² He may become highly skilled in using fractions, an expert in battles of the Revolutionary War, or highly knowledgeable in the use of magnets in industry. Although this pursuit of depth of understanding frequently starts with

¹ Brown, Spencer. “How To Educate the Gifted Child.” *Commentary* 21: 532-41; June 1953.

² DeHaan, Robert F., and Havighurst, Robert J. *Educating Gifted Children*. Chicago: University of Chicago Press, 1957.

a class project, the gifted child, when encouraged and guided, may soon leave his classmates and, indeed, his teacher behind as he follows his own interest and intrinsic need to know. A child who learns more about fractions than is typical for his grade level is learning what is normally taught later. Vertical enrichment of this type almost inevitably results in curriculum acceleration.

Extensive or horizontal enrichment adds the dimension of breadth. Breadth is achieved when the child participates in activities not normally included in the regular curriculum. Sixth-grade gifted children may learn to use the slide rule, an activity not usually included in the arithmetic program. Learning a modern foreign language is another example of lateral enrichment. There are many opportunities, usually on a less grandiose scale, for widening the gifted child's horizon.

As noted in the section dealing with dimensions of learning, enrichment in depth and breadth are interdependent. There are few clear-cut opportunities for one without the other. In many cases, the gifted child is beyond the scope and sequence of the regular program, and, if properly taught, this gap widens. For this reason, and because of the interdependence of the two dimensions, both intensive and extensive enrichment may be necessary for adequate curriculum adjustment.

Quality of Experience

Enrichment activities should focus upon quality rather than quantity of experience. A very conscious delineation needs to be made between activities that further learning, and activities that merely keep the child busy. It has been stated that all experiences are not educative; for the gifted, busywork may even be miseducative.

Beyond the platitude level, the discernment between quality and quantity is not an easy one. Consider

Brown's analogy of the dog going for a walk with his master. How many rabbits need the dog chase before the chase ceases to have educational value? Might he learn more if he chased fewer rabbits and tangled with a skunk or even a rabbit that didn't run? In the classroom a child learns from reading a biography of an American hero. Does he learn as much by reading a second biography of the same hero written by another author? Through extensive research a child gathers data on pork production in the United States. Should he then switch to the study of beef production or relate the production of pork to such factors as the production of corn and climatic conditions? There is no simple rule-of-thumb to follow. Experiences are uniquely personal. In general, the academically talented child needs to engage in activities that result in broad generalizations.

Enrichment and the Current Program

An early step toward enriching the curriculum is assessment of the content of the regular program. The teacher should not only know what content is usually taught in a subject in his own class, but also what precedes and what follows. Through a cooperative effort the faculty should examine the content of its program and note opportunities for horizontal and vertical enrichment. Many schools publish curriculum guides that contain suggestions for curriculum enrichment activities.

Enrichment in the Regular Classroom

No one seriously questions the need for enrichment. The real issue, with respect to organization, is whether the curriculum for the academically talented can be made richer when gifted children are in a regular classroom with peers of similar age but of widely varying

abilities, or whether the curriculum can be made richer when the academically talented are separated and placed in a special group with other gifted children. If one accepts the premise that the education of the gifted is one facet of the task of providing for individual differences, then the organizational plan employed should be one that enhances individualized instruction.

Advantages of enrichment in the regular classroom. The literature is prolific with lists of pros and cons of enrichment in the regular classroom.³ Perhaps the most practical, yet the most overlooked advantage of enrichment in the regular classroom is the simple fact that one can help the gifted child without modifying the school's basic organization. One can even move forward on a "broken front," for a single teacher can enrich his program without being dependent on the action of the entire staff. Add to this advantage the realization that although alternatives are controversial, no one disagrees, in principle, with enrichment in the regular classroom, and one can begin to see strong arguments in favor of regular classroom enrichment.

Another advantage of enrichment in the regular classroom is that the size of the school need not interfere with this approach. Even a one-teacher school can have an enriched curriculum for the able. Having academically talented children in the classroom may offer stimulation and a richer learning environment for pupils who are less gifted. In turn, by interacting with a cross-section of their peers in the regular classroom, gifted children enhance their own social and emotional development. Such interaction has much in common with out-of-school life. Furthermore, all children profit from enrichment in the regular classroom.

³ See, for example, DeHaan and Havighurst, *op. cit.*, Chapters 7 and 8; Passow, A. Harry. "Enrichment of Education for the Gifted." *Education for the Gifted*. Fifty-Seventh Yearbook, Part II, National Society for the Study of Education. Chicago: University of Chicago Press, 1958; Abraham, Willard. *Common Sense About Gifted Children*. New York: Harper & Brothers, 1958. Chapter 4.

Factors affecting enrichment in the regular classroom.

All classroom situations offer some opportunity for enrichment, but several factors influence the amount of enrichment that can be provided by a skillful teacher. Class size must be reasonable if one expects a great deal of enrichment. A class of 40 or 50 children demands so much teacher energy and time that little individualized help can take place. Therefore, when the teacher-pupil ratio becomes unusually large, there is a tendency to seek enrichment through some organizational scheme other than the regular classroom. The school staff which adheres to the premise that programs for academically talented children should be based on a sound program for all finds this is a questionable procedure. Certainly new ways of organizing should in no way diminish efforts to decrease class size.

Enrichment requires a wide variety of instructional materials. The school must enrich learning environment through additional materials and equipment—books, laboratories, equipment, teaching supplies.

Enrichment in the regular classroom is greatly dependent upon the skills and artistry of the teacher. The process differs from routine teaching in subtle ways, requiring a teacher who is sensitive to the needs and interests of gifted children and psychologically secure as a person.

Frequently the gifted child comes to know more about a topic than his teacher. Children can and do become rather expert on specific topics. Although this should not embarrass the teacher, it can cause some instructional problems. Under these circumstances, the teacher can give general guidance, direct research activities, and provide materials, counsel, and stimulation. But the gifted child also needs help from those who are more knowledgeable about a subject than he. He needs someone to provide him with sources of information and challenge him with ideas. Equally important, he needs the guidance of a teacher who has the knowledge and

insight to recognize and combat the verbalism and pseudosophistication that frequently develop when the child's knowledge is not rigorously challenged.

Enrichment in the regular classroom does not mean that the teacher must work alone. Within most school communities there are persons with special knowledge and skills who are willing and eager to help. Many schools have systematically identified these resource persons and developed effective ways of using them. Schools also employ consultants or teachers with special competencies to assist classroom teachers in enriching the program. The gifted child, then, can be afforded opportunities for interaction with adults who share his special interests.

SPECIAL CLASSES

The term "special classes" refers to the organizational scheme which seeks out the gifted children and places them together in a group for instructional purposes. This special grouping practice is not to be equated with a program for educating the academically talented child.

Separation into special classes takes several forms. On rare occasions, an entire school, such as the Hunter College Elementary School, is composed of gifted children. More often, groups of gifted children are housed in a regular elementary school, as is done in Cleveland's Major Work Classes. In either case, the underlying principles and purposes are the same, and the formation of special groups as an organizational device should be objectively evaluated on the basis of how well it facilitates the education of academically talented children.

In view of the vast amount of reported research concerning the advantages and disadvantages of such special groups one must ask: Why is there no firm conclusion? There are several reasons. First, many of the

issues are philosophical and cannot be resolved by experimental research, regardless of its refinement. Second, some of the issues are grounded in the psychology of learning for which basic research and theory are limited. Third, an organizational scheme such as special grouping is structured in a very complex matrix of variables that affect the effectiveness of the practice. Many instruments are still inadequate for measuring some of the variables considered important. Conflicting results from different communities lead one to suspect that extraneous factors affect the effectiveness of special grouping as an organizational practice. For example, separation into special classes is more apt to be practiced (and probably with success) in larger cities. This may happen not only because of the number of available students, but also because there is less personal and social contact between families in larger communities. Perhaps the most important determinant of the feasibility of grouping as an organizational plan is the attitude of those who must make it work. When teachers, parents, and pupils are agreed that grouping for the academically talented is worthwhile, the plan is more likely to be effective.

Problems of Grouping

This discussion has been centered on the general advisability of grouping as an organizational plan to facilitate the enrichment of instruction for academically talented children. In the final analysis, however, the feasibility of special grouping is apt to be determined by conditions in the local situation.

The question of a special school can be eliminated for most school systems. Only in the larger city systems are there enough gifted children to establish such a school. Even in metropolitan centers, transporting children to the school is a problem. Many educators and parents

are opposed to transporting small children the necessary distance, even if other disadvantages are ignored.

Special classes in regular schools have their limitations, too. Among these are the following: (a) an insufficient number of children in one grade in one school; (b) the need to transport participating pupils from outlying school areas; (c) placing the pupil in a group with children who are not his out-of-school associates.

There are those who view grouping as a practical alternative to enrichment in the regular classroom if the average class size in a school is large. This view is based upon the premise that the amount of enrichment in the regular classroom is inversely related to the size of the class. Under such circumstances, the first order of business should be to reduce the class size, but grouping the talented cannot be justified solely on this basis.

Partial Grouping

Details vary, but the typical procedure in partial grouping is for the gifted child to spend most of the school day in a heterogeneously grouped class and to work with a special group at designated periods throughout the week. The special classes may meet once a week or more often, and usually the child is limited to a special class in only one area. Under this arrangement the child has the opportunity to live and work with children of varying abilities, but the organization permits added enrichment. Grouping of this nature does not preclude enrichment in the regular classroom; it is an additional means of enriching the instructional program for the academically talented child. The advantages and disadvantages of this compromise in organization are fairly apparent. Some of the problems encountered in its operation, however, need to be explored.

Scheduling. In scheduling special classes in an elementary school that is organized on a self-contained

classroom basis, several problems arise: How long should the special class periods be? How frequently should the class meet? No simple answers are available; the kind of class that is scheduled will be the determinant. For example, a conversational Spanish class may need to meet at least three times a week for periods of 20 or 30 minutes. In an art class or a science class, however, a pupil can hardly be expected to assemble and use materials effectively in a 30-minute period. As is true in the regular classroom, a short instructional period is not conducive to problem-solving and creative activities, but, in the practical business of scheduling, a compromise is often necessary.

Another scheduling problem is that of deciding what to do with the pupils who are not in a special class. Even when several different classes are formed, one could rarely expect to place more than 20 percent of the pupil population in the special classes. Some schools set up remedial classes for pupils, but all nongifted pupils do not need remedial work. Some schools continue regular work; others have individual activity or supervised study periods. Within this arrangement, educational experiences can be provided for all pupils in terms of their special aptitudes and interests.

Finding space for special classes is another scheduling problem. Schools with special rooms—art room, music room, gymnasium room—have at least a partial solution, but many principals without such facilities are adept at finding special meeting places, such as the stage, an office, or a spare room. On occasion a classroom can be cleared by moving children to other rooms or teaching stations during the special period.

Scheduling special programs of any kind tends to make the regular schedule less flexible. The more program facets prearranged for a particular time and place, the more rigid the program. In scheduling special classes care should be taken to keep the schedule of the regular program as uninterrupted as possible.

Special classes can be scheduled before and after regular school hours and during the summer. This tends to solve most scheduling problems, as well as the problem of finding qualified teaching personnel. This procedure, of course, raises other problems. Some object to this plan because they see it as a means of fostering unequal educational opportunities. Conflicts with family activities and the child's interests and activities are among other problems that arise.

Selecting teachers. Special classes should be taught by teachers who not only have the necessary skills and knowledge in the subject area, but who are also highly enthusiastic about it. Some schools have "floating" teachers on their staff to work with special classes. These teachers, such as science teachers, are often shared by several schools. Schools which do not have the services of special teachers often find regular teachers who have the necessary qualifications and who can occasionally be released from their regular class in order to work with a special group. The teacher's time may be released for special classes by having another person (even the principal) take the regular class or by "farming out" his pupils into other classes during the special class period. Obviously, such arrangements require the enthusiastic cooperation of the entire faculty.

Kinds of special classes. Deciding what classes to create is no small problem, for children have interests and abilities in many areas. The faculty must make value judgments as to what areas of the curriculum need strengthening through special classes. The nature of the community will undoubtedly influence these decisions. For example, parents in communities of high socioeconomic level usually show more interest in special classes in art, music, and foreign language than do parents in communities of a lower socioeconomic level.

A Portland, Oregon, survey has shown that parents, teachers, and pupils favor special classes for many sub-

ject fields.⁴ The survey was made after the Portland program had been in operation for five years. It shows clearly that in Portland a vast majority of parents, teachers, and pupils endorsed special classes in the following areas: (a) academic subjects; (b) mechanical subjects (in Portland, Grades 7 and 8 are in the elementary school); (c) art; (d) creative writing; (e) music; and (f) social leadership. A majority of teachers and pupils favored classes in creative dramatics, though most parents did not see the need for this class. None of the groups saw the need for classes in creative dance.

Scheduling difficulties often limit the quantity and variety of special classes, for teachers and space must be provided. Classes should be limited to those areas in which quality work can be expected. Unless a well-qualified teacher is available to work with children in an area, no class should be formed.

Because of the many factors at play, the decision as to what special classes should be organized must largely be decided at the local school level. Prudence would dictate a slow, successful beginning with a goal toward later expansion into other areas.

Naming the special classes. The attitudes of people toward programs for academically talented children are often related to the names attached to special classes. The Portland survey revealed that parents, teachers, and pupils preferred names that identified the purpose of the class or the kind of work in the class rather than names which labeled the children.⁵ Thus, "special interest classes," "advanced classes," or "educational enrichment classes" were preferable to "classes for the superior," "classes for the exceptionally endowed," or "classes for the gifted." Many fear that naming classes

⁴ Hamilton, Norman K. *Opinions About the Portland Program for Gifted Children*. (This report is abstracted from a study of attitudes toward gifted children by the author.) (Mimeo.)

⁵ *Ibid.*

in a way that labels the child does harm to the child identified as gifted as well as to the child who is less gifted.

Although several problems connected with grouping have been discussed, it is wise to remember that many schools throughout the nation have met these problems and are providing added enrichment for academically talented children through special interest-ability classes.

ACCELERATION

Administrative acceleration is the process of moving the child out of the school unit at an age earlier than is normal. This may be done either by enrolling the child at an earlier age or having him spend less than the prescribed number of years in school. Clearly, administrative acceleration is related to the factor of time. Curriculum acceleration and administrative acceleration may be related, but they are not synonymous, for the child may experience an accelerated curriculum without moving through school in less than the prescribed time.

The underlying purpose of administrative acceleration is enrichment. This becomes apparent when one examines the underlying assumptions and implications. When the gifted child is moved to a higher age-grade placement, the assumption is made that because of his superior ability and knowledge the learning diet and environment at the higher level will enrich and enhance his learning. When a child is moved through elementary school in five years rather than the usual six, it is clearly implied that schooling beyond the elementary level contributes more to the development of his talents than schooling at the elementary level.

Many gifted children can and should enter professions that require years of preparation, and some research shows that accelerated pupils appear to be more apt to enter professional schools than nonaccelerated pupils.

Acceleration also allows pupils to enter productive life earlier. This fact might encourage acceleration, but it does not resolve the question of when to accelerate. Schooling might well be shortened at the secondary, college, or graduate-school level. The real challenge is to place the gifted person in the situation most conducive to his total development.

Advantages and Disadvantages

As is true in the case of special grouping, the literature is replete with long lists of the pros and cons of acceleration. Arguments in favor of acceleration mention that the gifted child finds the curriculum with the advanced age groups more challenging. Those who favor it claim that the age-grade, lockstep system gets in the way of rapid learners and these children should be allowed to progress at their own rate. Another argument is that there is really little correlation between achievement in a subject and length of time devoted to its study. Acceleration permits the pupil to finish school at an earlier age and enhances his likelihood of post-college work and creative efforts in a profession. Many think of the money that can be saved, both by the individual and the state, if the child's school life is shortened and he enters into productive life at an earlier age.

Those who do not favor acceleration say that learning, except in some skills, is not neatly compartmentalized and conveniently sequential. The child who misses a year of schooling may be short-changed in breadth and depth of understanding. They claim that placing a young child with those who are older handicaps the child in his social and emotional development. Comparability in mental age does not necessarily mean comparability in intellectual functioning. The six-year-old with a mental age of nine does not think or behave like the nine-year-old with a mental age of nine. They note further that accelerating the gifted child deprives

him of living at his fullest. He may become so busy trying to keep up with others that he has little time and energy for creative efforts and depth pursuits of his own interests.

Research on Acceleration

In general, research on acceleration tends to support the idea that children profit academically from acceleration if it is not carried to an extreme. Research does not appear to support the idea that acceleration in moderation (a year or two) adversely affects the social and emotional development of children. There is little or no evidence that *groups* of children are handicapped by acceleration. Many, however, are familiar with *individual cases* where acceleration has probably been detrimental.

Although many research reports on various aspects of acceleration are available, some limitations of the research, especially in efforts to compare the relative effectiveness of acceleration and enrichment, should be noted. Academic achievement is typically assessed by tests that are used to measure knowledge and skills normally developed in the curriculum. The tests are not designed to measure learning outside the scope of the regular curriculum, such as results from horizontal enrichment. Neither are the instruments adequate for measuring depth of understanding. Consequently, procedures are limited with respect to enrichment in breadth and depth in this kind of evaluation. The research, however, does indicate that accelerated children do satisfactorily learn that which is measured by standard instruments.

Ways of Accelerating

Three ways of accelerating have been used in the elementary school: early entry, grade skipping, and the

completion of a specified sequence in less than the required time, such as completing three years' work in two by proceeding at a constant rate. In practice, all these ways have their problems and limitations.

Early admission to the elementary school has the advantage of getting the child through school at an early age without shortening the length of his formal schooling. In many communities, carefully controlled, early admission has been judged successful. After evaluating the early-entry program in Brookline, Massachusetts, Hobson recommended that: (a) children be admitted to kindergarten at age four years, nine months, and to Grade 1 at five years, nine months; (b) children be admitted to kindergarten on trial at age four years, three months, and to Grade 1 at five years, three months, if their mental ages are five years, two months, and six years, two months, respectively; (c) all trial admissions be subject to the approval of a physician.⁶

Early admission is successful only if the child admitted is mentally, emotionally, physically, and socially mature enough to fit into a program with other children. The practice is often deterred on two counts. First, careful assessment of pupils prior to entry is required. This requires trained personnel, facilities, organization, and expenditure of funds. Second, unless carefully planned and explained to the public, many parents may object to the practice. Few educators would contend that chronological age is a valid criterion for admission to school, but many parents and educators are more willing to accept this criterion than a more complex, "scientific" one. Perhaps the objectivity, apparent simplicity, and equality of treatment afforded by the chronological age criterion make it appealing. Wisely used, though, early entry may be profitable for the academically talented child, permitting him to finish school at a younger

⁶ Hobson, James R. "Mental Age as a Workable Criterion for School Admission." *Elementary School Journal* 48: 312-21; February 1948.

age and placing him with children who are older chronologically but nearer to him in organismic age.

Skipping has long been used as a means of accelerating. Administratively, it is simple—one merely moves the child. But, as the term implies, the child skips something. If the curriculum has a sequence, he has a gap in his educational development. Thus, despite its apparent administrative simplicity, skipping is the least preferred of the three ways of acceleration.

Brown has suggested that skipping is like whizzing by the car in front at 60 miles per hour, then slowing down to 20 behind a line of trucks.⁷ A constant speed of 45 is preferable. Some schools have managed to get this smooth progress at an accelerated rate by carefully planning blocks of the program so that children may finish them in less than the usually prescribed time. The *ungraded primary unit* offers excellent administrative machinery for this. The child may complete three years' work in two years. Special progress classes, a combination of special grouping and acceleration, are sometimes used to achieve smooth acceleration. In these classes the program can be enriched and accelerated. Even without special progress classes, acceleration can be made more of a continuous process than skipping if teachers understand the instructional program and individualize instruction. Smooth acceleration of no more than one or two years may be profitable for carefully selected academically talented children, especially in those school situations where curriculum acceleration is not a reality.

DECIDING ABOUT ORGANIZATION

The following guidelines may be of help to the principal in making decisions about organization.

⁷ Brown, Spencer, *op. cit.*, p. 537.

First, in developing a program for academically talented children, the focus should not be on organization. Successful and unsuccessful programs may be found within every organizational framework. Second, successful organization is inevitably dependent upon many local factors, such as size, financial condition, and socioeconomic status of the community, school facilities, competencies of the staff, educational philosophy and objectives of the school, and tradition. Third, changes in organization should be evolutionary, not revolutionary. The opportunity to help the academically talented child must not be jeopardized for the sake of an organizational innovation.

Many people should participate in the planning process. Pilot or small-scale changes are often valuable. If this seems somewhat conservative and overly cautious, it is because programs for academically talented children are not to be viewed as temporary. Rather, they should become and remain an integral part of the community's educational program; hence, they should be solidly developed from the beginning.

A thorough study and review of the curriculum both in terms of sequential and horizontal learning will provide the best basis for deciding about organization.

CHAPTER VII

Administrative Considerations

Most problems which arise in developing programs for academically talented children are rooted in curriculum issues, but some are more administrative in nature. At the operational level, of course, no distinction need be made. The following problems are of immediate concern to school personnel.

GETTING STARTED

A program for academically talented children begins with an idea, and ideas have their origin in the minds of individuals. Taking an idea and translating it into a workable program is an administrative task.

Williams suggests that programs are developed in one of three ways.¹ They may come into existence through administrative decree, e.g., the superintendent may issue a memorandum setting forth a program. The superintendent, in such cases, may confer with his curriculum staff and secure approval of the school board, but directions for the program are set forth by the chief administrator. The approach is direct; programs can be quickly installed. Though the approach has many obvious limitations, there are apparently more programs established in this manner than we would like to admit.

Most schools, however, choose a more cooperative approach. Many professional and nonprofessional per-

¹ Williams, Clifford W. "Organizing a School Program for the Gifted." *Education for the Gifted*. Fifty-Seventh Yearbook, Part II, National Society for the Study of Education. Chicago: University of Chicago Press, 1958. p. 395-413.

sons are involved in discussing ideas, proposing alternatives, and arriving at a program. This process takes a great deal of time but has the distinct advantage of eventually gaining the approval of many people, and, consequently, is less likely to meet with opposition and uncooperative personnel.

A third approach makes use of pilot programs. These may be started in one or more schools and several practices may be tried simultaneously. The use of pilot programs has several advantages. Unsound practices can be discarded before they are installed on a system-wide basis. Curriculum may develop on a "broken front." Thus, the highly interested faculty can move forward without having to wait for slower moving groups. Leadership and services can be focused on the schools in which pilot programs are operating. In many cases pilot programs can be experimental or research-oriented. The development of worthwhile pilot projects, though, is dependent upon cooperative effort. Time must be allowed for conferring and planning. Cooperative in this context differs from a system-wide approach largely in scope or the number of people involved.

Wherever the idea originates, it is certain that the building principal is the key person in getting a program started. His first task might well be that of focusing concern, within his faculty, for the education of academically talented children. He is sensitive to the instructional needs in his own school. He has access to pupil records and can readily check on individual pupil progress. He listens to his teachers discuss the difficulty of challenging the gifted child. In the course of his regular work with teachers and pupils he has many opportunities to develop this concern in himself and others. The principal is also a communication link between the superintendent and his faculty. Because of his unique position of leadership at the teaching level, no program is apt to get far without his efforts.

Surveying for basic information, defining, developing, screening and identifying techniques, gathering teaching materials, and developing instructional procedures all require faculty time and energy. These processes also require a change in faculty thought and action. Consequently, the development of programs for academically talented children is usually dependent on an inservice education project. In the individual school or the school system, the effort should be viewed as a full-time inservice task rather than a mere side issue or one of several projects.

FINANCING

Special programs for academically talented children do not necessarily require additional financing. In fact, most programs now in operation do not have money specifically budgeted for them. Obviously, if class size is to be reduced, additional staff employed, and materials purchased, some additional financing is necessary. Even in the most elaborate programs, however, the per-pupil cost for the academically talented is considerably less than the per-pupil cost for other types of exceptional children. Williams has estimated that in an elementary school with 10 to 20 percent of the pupil population identified as academically talented, a satisfactory program can be operated for approximately 3 percent of the total budget. This would amount to \$35 to \$70 per year additional cost for each academically talented pupil.² The major expense item in Williams' proposal is for an additional half-time teacher. These suggestions offer some direction for school personnel, but one should recognize that many local conditions, including the local per-pupil expenditure for the regular program, affect the amount of additional financing needed for special programs.

² *Ibid.*

Good instructional programs cost money. Instruction for academically talented children is no exception. School officials should work for whatever budget is necessary to support an adequate program for all children, but if the gifted child cannot be adequately provided for in the regular budget, additional funds can certainly be justified. Increased appropriations, one should remember, are apt to follow, not precede, ideas and hard work. No school system should refrain from improving the quality of education for academically talented children on the pretext that it does not have money.

SELECTING AND WORKING WITH TEACHERS

Organization, materials, and facilities all affect the instructional program, but quality teaching demands quality teachers. What are the characteristics of a good teacher for academically talented children? Efforts to list these characteristics merely result in a description of the teacher that would be good for all children. Portland teachers, for example, suggest these four characteristics as being uniquely needed for teachers of gifted children: (a) greater knowledge of subject matter; (b) ability and willingness to encourage pupils to ask questions and engage in independent work; (c) willingness to do more work; (d) respect for and interest in the gifted child.³ Most principals always attempt to find teachers with these characteristics. These facets are essential for teachers who work with academically talented children.

Few schools employ special teachers for academically talented children. Most teachers are selected from the existing staff. Unless the school has special classes for academically talented children, the regular teacher will

³ Portland Public Schools. *The Gifted Child in Portland*. Portland, Ore.: the Schools, 1959. p. 107.

be teaching these children, anyway. Because of this and because few teachers with special preparation to teach gifted children could be found even if one looked for them, schools must prepare their teachers through in-service education. This is usually done through self-directed study, conferences, workshops, faculty meetings, and regular college classes, both off and on campus. In these educational programs, attention is given to psychological principles relevant to gifted children, evaluation, and methodology. Advanced study in subject matter areas is not to be overlooked.

The education of academically talented children is significantly enhanced when an administrator or coordinator devotes major attention to and assumes responsibility for the program. The coordinator helps teachers identify and work with gifted children. He gathers instructional materials for the teacher and suggests ways and means of working with the children. He coordinates a continuous evaluation, serves as a liaison with other agencies and the public, and gives general direction to the program. When a special person is not designated as coordinator, the principal may assume these responsibilities. Even if a special coordinator is at work, the principal still makes a direct contribution to the program, not only in the ways previously enumerated, but also through the dynamics of his own leadership, and his own interest in and enthusiasm for education of the academically talented.

WORKING WITH THE PUBLIC

Without exception, good instructional programs are founded upon sound public understanding and support. Because people feel close to their schools and are sensitive to changes within them, public schools cannot move far from the ideas of the public. Efforts to introduce innovations, sound though the changes may be, are fre-

quently doomed to failure because the public simply does not understand them.

For this very pragmatic reason, and because parents have a right to be informed, the school that wants to develop a sound program for academically talented children must be concerned with effective ways of working with and keeping the community informed. This work should begin at the very inception of the program and should be a continuing effort.

The most essential element in sound school-community relations is a faculty that is informed about and committed to the school's program. Public relations experts, liaison personnel, news releases, and reports to the public are of little consequence in a community that has a divided professional house.

Parents and the general public should be regularly and systematically informed through several communication media. This task is made considerably easier and more effective if there is continuous evaluation. Parents, of course, should be informed in writing and through personal conference of specific actions that directly affect their children. At these conferences, held by the teacher, principal, and coordinator, or a combination of these persons, the parent should be encouraged to become a partner in the job of educating the child.

The support of community agencies which have a special interest in youth-development programs should be sought. These agencies not only form a communication link with the general public, but frequently have resources, or access to resources, that can facilitate program development.

Those who help to develop a program usually become the program's best supporters. Broad support, then, is gained by having many nonprofessional persons serve on planning committees. Similarly, instruction may be enhanced and greater acceptance of the program gained through a wise use of community resources—people, agencies, and institutions.

EVALUATION

Because evaluation is frequently the last topic discussed in books and monographs, one should not relegate it to last place in importance. Indeed, if any program is to be accurately evaluated, the plan for evaluation should be built into the program from the beginning.

Since evaluation is essential to systematic improvement of a program, it should be a deliberate and continuous process of assessment in terms of stated goals. Growing out of evaluation should be a restructuring of the program, in light of the evaluation.

Objectives and Assessment

Evaluation has two essential components: objectives and assessment. What one assesses is, of course, dependent upon his objectives. Although assessment is often difficult and somewhat inadequate for evaluating programs for academically talented children, the lack of clearly stated teaching or learning goals is frequently the greater obstacle. Strang suggests that failure to translate general goals into specific teaching goals that can be appraised is a decided weakness in most programs.⁴ An analysis of surveys of California programs leads one to the same conclusion.⁵ The plan for evaluation, then, should begin with a statement of specific objectives, paralleled by suggestions for assessment.

Assessment prior to beginning a practice is necessary if one is going to determine the effect of the change in practice. These baseline data permit a comparison of

⁴ Strang, Ruth. "A Critical Analysis of Programs for Gifted Children." (Address before the American Association of School Administrators, Atlantic City, New Jersey) 1960.

⁵ California Elementary School Administrators' Association. *The Gifted Child: Another Look*. Monograph No. 10. Palo Alto: National Press, 1958. p. 18.

old and new ways of doing a task. Although such comparisons assist in determining the effectiveness of a program, they should not preclude the examination of profiles of individual pupil development. What happens to the individual is, in the final analysis, the important consideration.

In evaluating programs for academically talented children, appraisal should be made of the effect of the program on *all* children. Good programs for the gifted should certainly benefit the gifted, but they should also raise the quality of instruction in the entire school.

Assessment should go beyond the use of standardized tests. Inventories of interests, attitudes, and personal adjustment are useful and so are observational data and anecdotal records. Careful assessment should also tap the more subtle aspects of the affective domain—feelings, attitudes, motivation, values.

Evaluation of the program should not be limited to opinion polling or to an assessment of the enthusiasm of pupils, teachers, or parents. Although a program is not likely to be successful without the support of these groups, enthusiasm for a practice, in itself, does not guarantee that the practice is valuable.

Criteria for Evaluation

The school's purposes for the program will determine the criteria to be used in evaluation. Listed below are some of the foci Passow and others suggest for consideration:⁶

1. *Increased achievement.* The program should result in increases in achievement by the gifted. Although standardized achievement tests are useful, as noted before, they have their limitations in measuring both depth and breadth of learning.

⁶ Passow, A. Harry, and others. *Planning for Talented Youth*. New York: Bureau of Publications, Teachers College, Columbia University, 1955. p. 66-70.

Additional instruments are needed. Large school systems may develop their own achievement tests. Assessment of ability to think creatively and critically and assessment of proficiency in research and study skills should be made. Output of creative work by individuals should be observed.

2. *Increased interest in and improved attitudes toward school activities.* The special program should increase the pupils' enthusiasm for intellectual pursuits. Inventories of pupil interests and attitudes, teacher observation records, and pupil logs (for example, record of library books read) offer clues for assessing pupil interests and attitudes.
3. *Improved social status.* What is the impact of the program on the social status of the child? Socio-metric techniques, interviews, and observations may be used to estimate peer status. Increased pupil interest in aspects of the program and greater appreciation of talents by all pupils are indicative of improved attitudes toward a program and toward pupils in it.
4. *Improved personal adjustment.* In addition to assessing peer acceptance, efforts should be made to ascertain the pupil's self-acceptance. Observation of pupil behavior as well as personal adjustment inventories may be used. Personal adjustment is important from a mental health point of view, but, too, the child's self-concept and acceptance of this self-concept have an effect on how he uses his talents.
5. *Improved teaching.* Programs for academically talented children should result in improved instruction. They should lead to wider and wiser use of teaching materials, more individualized instruction, more problem-centered teaching, more pupil participation in group projects, and more individual creative projects. Classroom procedures can best be viewed through systematic classroom

visits and observations (with a prepared guide) by the principal, supervisor, or fellow teacher. Schedules, lesson plans, logs of class activities, and records of materials used are data that may be useful in noting changes in classroom procedures.

6. *Improved community attitudes.* A good community climate is necessary for a successful program for academically talented children. This may be assessed directly through questionnaires and interviews. Indirectly, one can usually get a picture of the community climate through the tenor of press releases, expressions of public groups, including the PTA, and the support offered the program by citizens through financial backing and the rendering of personal services.
7. *Follow-up of pupils.* In the final analysis, the impact of a program on the lives of children is the important factor. Efforts should be made to follow the child through his formal schooling and into adult life. Trying to determine the quality of human being a child becomes is an arduous and long-term project, but it offers the best evidence for determining the value of a program.

A FINAL WORD . . .

The task of helping youth to *capture excellence* and thereby make their best contribution to the decades ahead is difficult, since the demands of the future are so unclear. More and better trained teachers and more money, while clearly necessary, will not suffice to do the job. Experimentation with administrative procedures and with teaching methods is also needed: for example, functional grouping; flexible programming; more effective use of electronic devices, including the teaching machine; pupil assignments consistent with

what is now being revealed concerning the development of pupil creativity.

Yet, in our enthusiasm for early development of talent, we must avoid being merely spectacular. It has been demonstrated that very bright third graders are able to learn Sanskrit and that very bright pupils in the intermediate grades are able to learn advanced college astronomy. But just because something *can* be done does not mean it *should* be done. Decisions concerning curriculum organization and content allocation, particularly for the academically talented pupil, should be justified on philosophical grounds as well as on objective test data and what is known about human growth and the learning process.

Classroom-centered research is badly needed. It seems likely that many questions about the academically talented can be answered, at least in part, through classroom research by the teacher in cooperation with others on the staff.

During the next few years there will surely be abundant opportunity to move forward on educational frontiers. Teachers and administrators who can use the past as a springboard for future development, who can safeguard the present, and, at the same time, move ahead will be the leaders who contribute most to the soundness of tomorrow's schools and, indeed, to the security of tomorrow's democracy.